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**US Army Corps
of Engineers**

New Orleans District

Cultural Resources Series

Report Number: COELMN/PD-93/02

**SIGNIFICANCE ASSESSMENT OF SITE 16SC61,
LULING REVETMENT, MISSISSIPPI RIVER
M-116.7-R**

Final Report

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AUG 04 1993
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March 1993

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93-17422



93 8 3 138

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS Not applicable		
2a. SECURITY CLASSIFICATION AUTHORITY Not applicable			3. DISTRIBUTION / AVAILABILITY OF REPORT Unclassified. Distribution is unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S) COELMN/PD-93/02		
6a. NAME OF PERFORMING ORGANIZATION Earth Search, Inc.		6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION U.S. Army Corps of Engineers New Orleans District	
6c. ADDRESS (City, State, and ZIP Code) P.O. Box 850319 New Orleans, LA 70185-0319			7b. ADDRESS (City, State, and ZIP Code) P.O. Box 60267 New Orleans, LA 70160-0267		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DACW29-90-D-0017, D.O. 005	
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO. Not applicable	PROJECT NO. Civil Works	TASK NO. funding
11. TITLE (Include Security Classification) Significance Assessment of Site 16SC61, Luling Revetment, Mississippi River M-116.7-R					
12. PERSONAL AUTHOR(S) Herschel A. Franks and Jill-Karen Yakubik (contribution by Benjamin Maygarden)					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 1991 TO 1993		14. DATE OF REPORT (Year, Month, Day) March 1, 1993	
15. PAGE COUNT 244					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Archeology, historic archeology, sugar plantation, slave quarters, nineteenth century, St. Charles Parish, southeastern Louisiana		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) Site 16SC61 was reported by Shannon et al. (1988). It is situated adjacent to the Mississippi River in St. Charles Parish. Comparisons of historic maps indicate that a moderate degree of erosion has occurred here during the past 100 years. Also, a series of levee setbacks have occurred. Backhoe and hand excavations were undertaken to determine site extent and to determine whether in situ deposits exhibited integrity. Most of the artifacts were from the ante-bellum period. Archival evidence indicated these derived from the quarters complex. However, erosion, bankline grading, and excavation of a borrow pond have truncated the site so that it is only about 20 m wide. Also, antebellum and postbellum remains appear to be mixed. The site does not exhibit sufficient extent or integrity necessary for further excavations to contribute information concerning the history of the area. It is not eligible for nomination to the National Register of Historic Places.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Mr. James Wojtala			22b. TELEPHONE (Include Area Code) (504) 862-2552		22c. OFFICE SYMBOL CELMN-PD-RN



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REPLY TO
ATTENTION OF:

February 2, 1993

Planning Division
Environmental Analysis Branch

To The Reader:

The following report provides a discussion on archeological investigations conducted at site 16SC61. This effort was designed, funded, and guided by the U.S. Army Corps of Engineers, New Orleans District as part of our cultural resources management program.

Testing documented prior disturbance to the site and determined that 16SC61 does not exhibit the quality of significance necessary for inclusion on the National Register of Historic Places [36CFR60.4 (a-d)]. The Louisiana State Historic Preservation Officer concurred with this assessment by letter dated May 28, 1992.

This report has been reviewed and accepted by the New Orleans District. We commend the contractor's efforts and careful scholarship.

James M. Wojtala
Technical Representative

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Authorized Representative
of the Contracting Officer

R. H. Schroeder, Jr.
Chief, Planning Division

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CHAPTER 1 INTRODUCTION

The Scope of Services for this project (Appendix I) called for archeological testing to determine the significance of 16SC61. The site is located on the Mississippi River batture (at Mile 116.7-R) within the Luling Revetment easement (Ranges D-58 to D-69). Figure 1 is an excerpt from the USGS quadrangle and Figure 2 is an excerpt from Chart 48 of the Hydrographic Survey series. Both of these show the location of the site.

The site was reported by Shannon et al. (1988) as a series of features eroding out of the bankline. Their findings are discussed in detail in Chapter 7. In 1991, the site was threatened by direct construction impacts as a result of plans of the Corps of Engineers for extending the existing Luling Revetment for a distance of approximately 5000 feet downstream from Range D-58. An examination of the site by the project Technical Representative (Ms. Carroll Kleinhans) indicated that features eroding from the bankline appeared to date later than those originally described at the site and that earlier remains were represented by secondary scatters of artifacts present along the deflated bankline.

Earth Search, Inc., used a variety of field methods to determine whether the site exhibited integrity and further research potential. Field work was also designed to define the extent of the site which had been defined previously only on the basis of bankline features and artifact scatters on beaches.

Test excavations at 16SC61 demonstrated that artifacts dated to the antebellum period were present in buried contexts within some portions of the site. However, no evidence was obtained to indicate that there was a buried protohistoric or early historic (pre-1800) period component. Also, some portions of the site had been disturbed so that twentieth-century materials were mixed with the earlier artifacts. Backhoe excavation demonstrated that most of the site as originally defined had been lost to erosion and bankline grading along the Mississippi River, and that any landward expression of the site was probably destroyed during excavation of a borrow pond associated with the construction of the modern (constructed ca. 1930) levee.

Thus, only a narrow, linear strip of buried antebellum artifacts is present at 16SC61. These

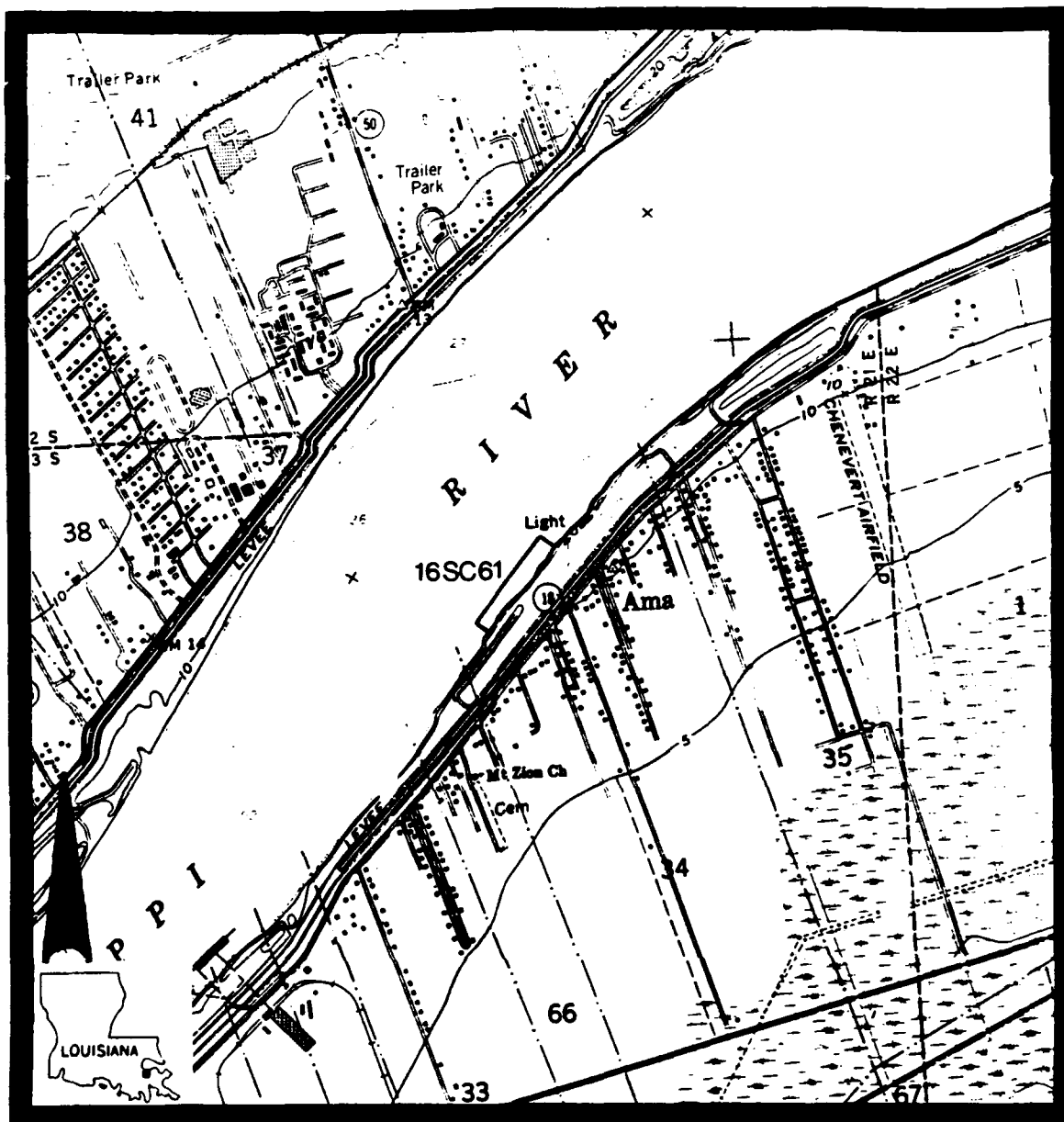


Figure 1. Excerpt from the Luling USGS 7.5' (1989) quadrangle showing the location of 16SC61.

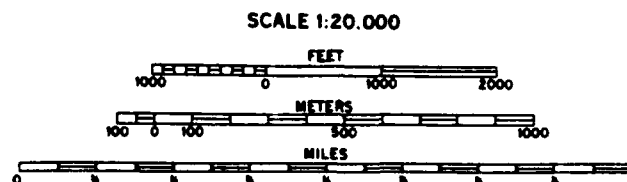
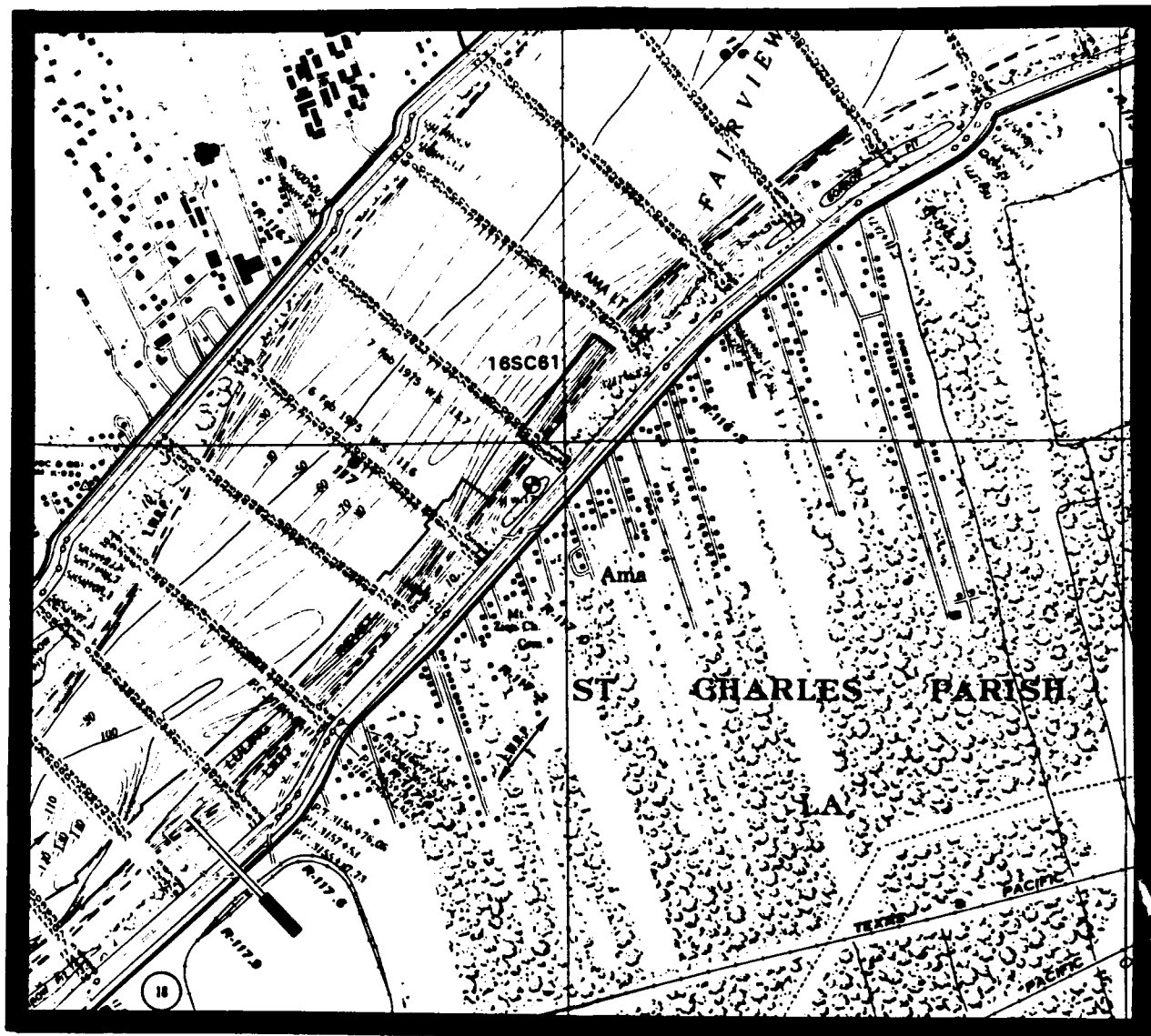


Figure 2. Excerpt from sheet 48 of the "Mississippi River Hydrographic Survey 1973-1975 Black Hawk, LA to Head of Passes, LA, Also South and Southwest Passes and Pass A Loutre", showing the location of 16SC61.

artifacts appear to represent the remains of a sugar plantation. However, their limited extent and the apparent absence of in situ features indicates that the site does not exhibit further research potential. Site 16SC61 should not be considered eligible for nomination to the National Register of Historic Places.

CHAPTER 2

GEOMORPHOLOGY IN THE VICINITY OF THE STUDY AREA

Geomorphic Development of The Area

Pleistocene deposits underlie the region in which 16SC61 is located. They were probably formed in an estuarine or nearshore-gulf depositional environment. The Pleistocene surface in the vicinity of the site lies at depths ranging from 17 to 21 m below NGVD (Britsch and Dunbar 1990:25).

Louisiana's deltaic plain, within which 16SC61 is located, was created by progradation of a series of Mississippi River courses and deltas. The Mississippi River has repeatedly built major delta lobes, and these were subsequently abandoned. After abandonment, marine transgression occurs due to compaction and subsidence. In recent times, human activity has accelerated the rate of land loss. Prior to that activity, there was an overall gain in the size of the coastal plain in southeast Louisiana (Britsch and Dunbar 1990:25-26).

During the last 7,000 years, a series of delta complexes formed. These complexes, beginning with the oldest, were the Maringouin, Teche, St. Bernard, Lafourche, and the Plaquemine-Modern. Their locations are shown in Figure 3. The estimated ages of these complexes, and the series of lobes of which each was comprised (Frazier 1967), are shown in Figure 4.

At ca. 4700 BP, the river's flow was carried by Bayou Lafourche and the approximate present-day course of the Mississippi River. The latter, representing Frazier's (1967) Lobe 3 of the St. Bernard Delta Complex, received almost full flow. Sediments were deposited in an easterly direction. This channel is thought to have been within 1.6 km of the present course of the river in the vicinity of 16SC61. However, its exact position is unknown. A natural levee had formed adjacent to the channel, but south of that levee was only open water (Britsch and Dunbar 1990:27-31).

The Bayou Terre Aux Boeufs delta lobe, representing Frazier's (1967) Lobe 5 of the St. Bernard delta complex, began prograding to the east of the study area approximately 4000 BP. Intertributary sediments now began to be deposited atop earlier prodelta sediments. The upper surface reached sea level, and a marsh was established where only open water had been previously. This marsh surface was extensive, but was only in

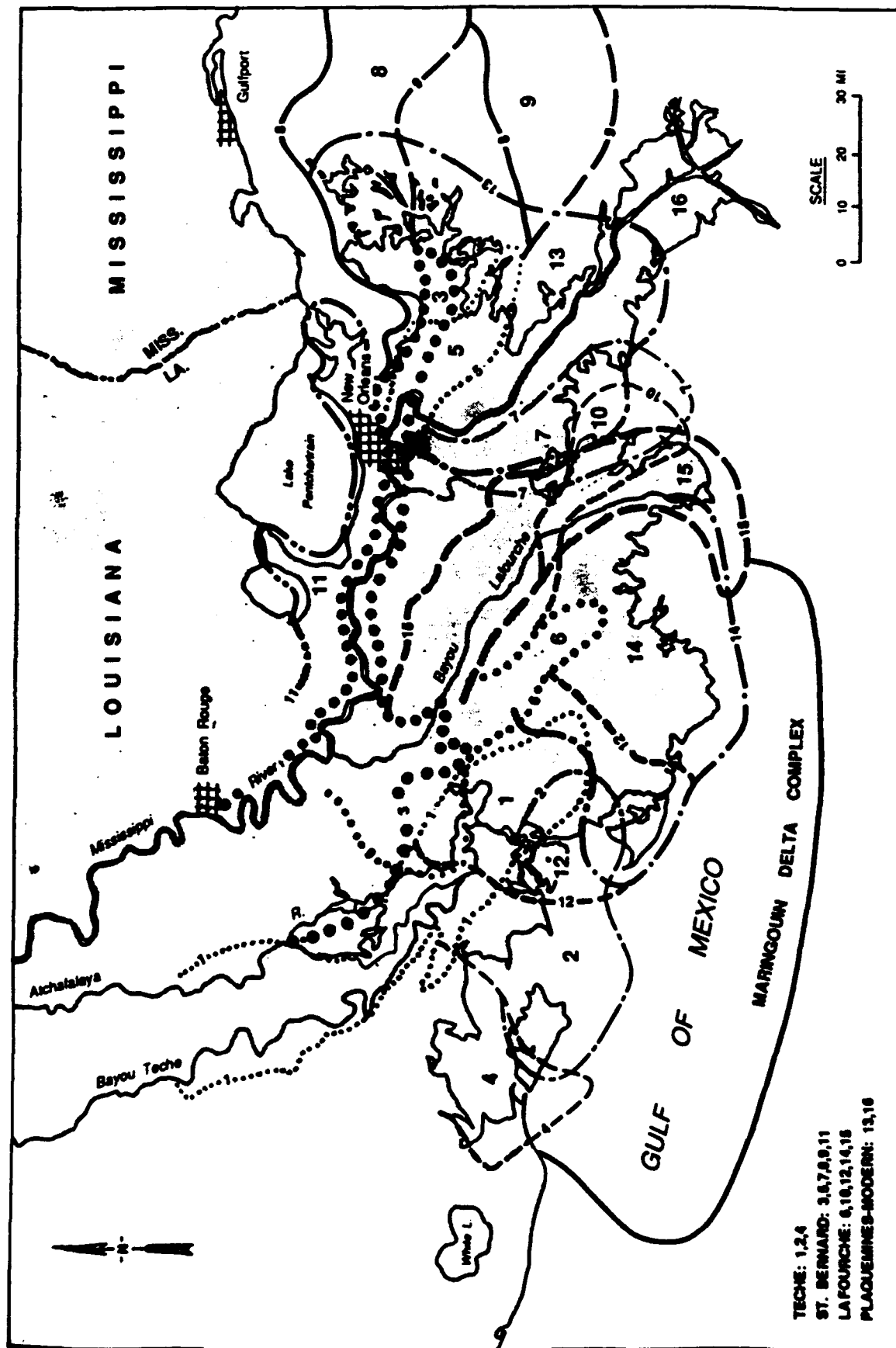


Figure 3. Delta lobes formed by the Mississippi River in the past 7,000 years (from Frazier 1967 and Britsch and Dunbar 1990:28).

THOUSANDS OF YEARS BEFORE PRESENT

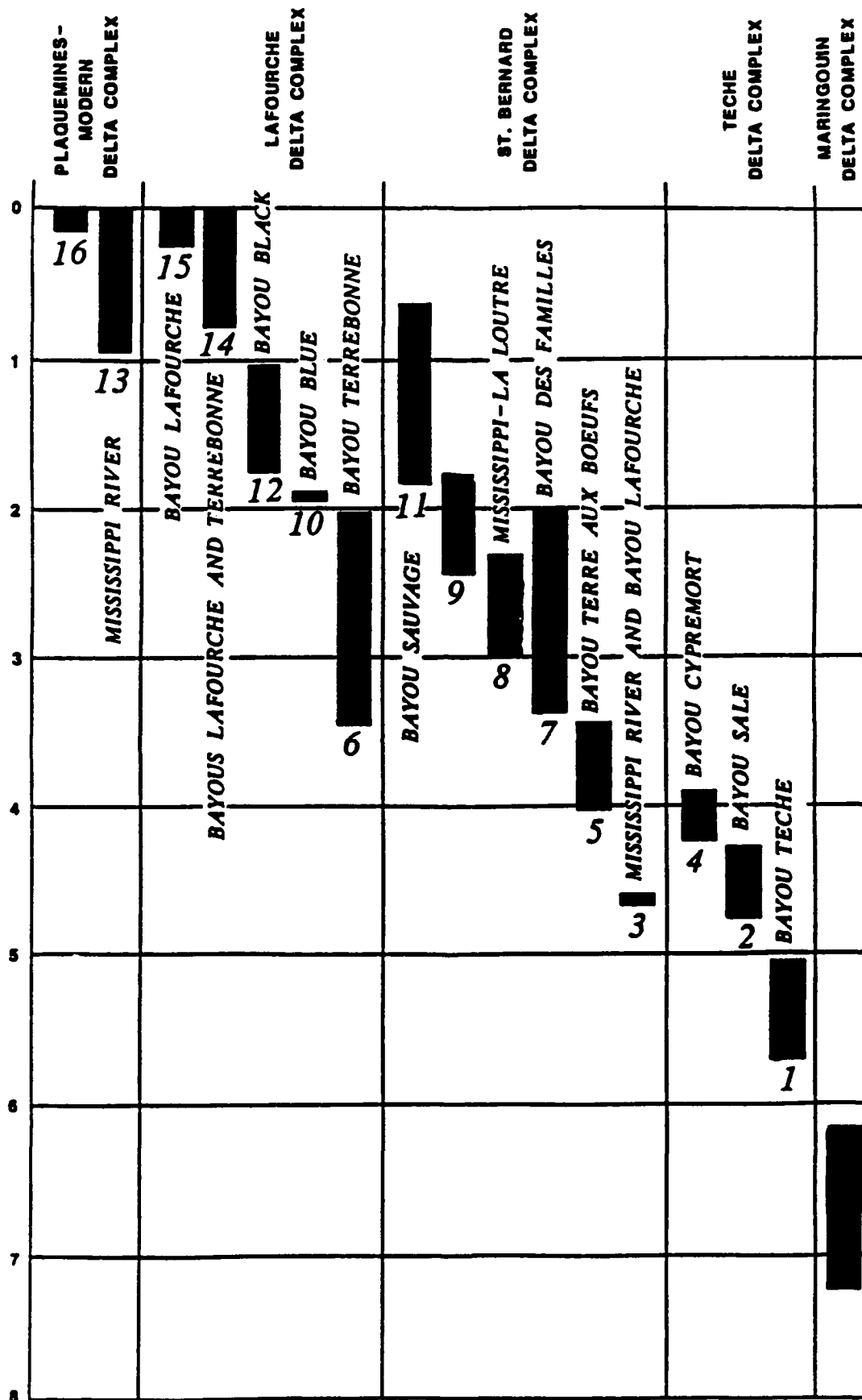


Figure 4. Delta chronology (from Frazier 1967 and Britsch and Dunbar 1990:29).

existence for a short period of time, possibly less than 200 years (Britsch and Dunbar 1990:30-33).

The Bayou Cypriere Longue distributary system began to develop to the west and south of 16SC61 about 3500 BP. The system originated as a crevasse on the Mississippi River. The crevasse was open long enough (ca. 700 to 800 years) to establish a dense network of distributary channels. The system was active from ca. 3500 BP to ca 2700 BP (Britsch and Dunbar 1990:33-35).

The Bayou Verret distributary system began to develop in the vicinity of 16SC61 study area about 2500 BP. It originated as a crevasse at the same location on the Mississippi River and its flow reoccupied portions of the Cypriere Longue system. However, some channels extended in an easterly direction, much closer to 16SC61. This new system was active for only 200 or 300 years (Britsch and Dunbar 1990:35-37).

Since approximately 1700 BP, no new distributary systems have developed in the study area. However, the previously developed systems continued to receive some flow which added to natural levee and swamp deposits. The last crevasse that affected the area was in 1884. It was referred to as the "Davis Crevasse" and the point of origin was only about 2.3 miles upriver from 16SC61, at a rice flume on the Davis Plantation. Since that time, artificial levees have restricted flow into the various systems (Britsch and Dunbar 1990:39-40).

Geomorphic Environments in the Vicinity of 16SC61

Figure 5 shows the Mississippi River natural levee and the system of distributary channels in the vicinity of 16SC61. It also shows the various geomorphic environments near the site. These environments are defined and discussed briefly in this section because human activity and site location are related to their presence.

Natural Levees. Natural levees form when sediment suspended in flood flow is deposited adjacent to a channel. Over time, vertical accretion occurs and the resulting landform is a low, wedge-shaped ridge. Natural levees adjacent to the Mississippi River in the vicinity of 16SC61 are 0.8 to 2.4 km wide, and up to 10 m thick. Those associated with the nearby distributary channels are much narrower, and their thickness ranges from 3 to 6 m. Soils in these natural levees are clay, silt, and fine sand. Deposits are coarser-grained near

[illegible]

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channels and finer-grained at greater distances from channels (Britsch and Dunbar 1990:13-19).

Point Bars. Point bar deposits form by lateral accretion during river migration. These deposits occur due to deposition and infilling on the inside or convex bank (Britsch and Dunbar 1990:20). Figure 5 shows that point bar deposits are located a short distance downriver from 16SC61, and on the adjacent bank of the river.

Inland Swamps. Inland swamps occur in poorly drained areas bordering natural levee ridges. They receive fresh water and sediment during overflow associated with seasonal flooding. At those times, fine-grained sediments are deposited, and these form thick clay sequences. Inland swamps are concentrated near the largest abandoned distributaries south and southwest of 16SC61 (Figure 5). Elevation generally is approximately 0.3 to 0.9 m above the surrounding marsh (Britsch and Dunbar 1990:20-21).

Fresh Water Marsh. Much of the area south of 16SC61 is occupied by fresh water marsh, a nearly flat expanse where only grasses and sedges grow. Marsh deposits are largely the result of organic sedimentation that occurs as plants die and are buried. Peats, organic oozes, and humus are deposited during this process. Most of the fresh water marsh in the vicinity of 16SC61 is "floating marsh" (flotant) which consists of a vegetative mat underlain by muck or organic ooze which grades to clay with increasing depth (Britsch and Dunbar 1990:21-22).

Crevasse Splays. Crevasse splays are composed of coarse-grained sediments which are deposited in triangular or semi-elliptical formations. Numerous anastomosing or interconnecting small channels radiate outward from the splays. The largest crevasse splay mapped in the study area is that associated with the 1884 Davis Crevasse. This splay is approximately .9 m thick near the river, and covers approximately 5.2 sq km (Britsch and Dunbar 1990:22). Its location southwest of 16SC61 is shown in Figure 5.

Bankline Erosion at 16SC61

Figure 6 is a map showing Mississippi River channel migration at and near 16SC61. The data are based on comparisons of banklines between 1879-94 and 1973-75. The map shows that the site is located on a portion of

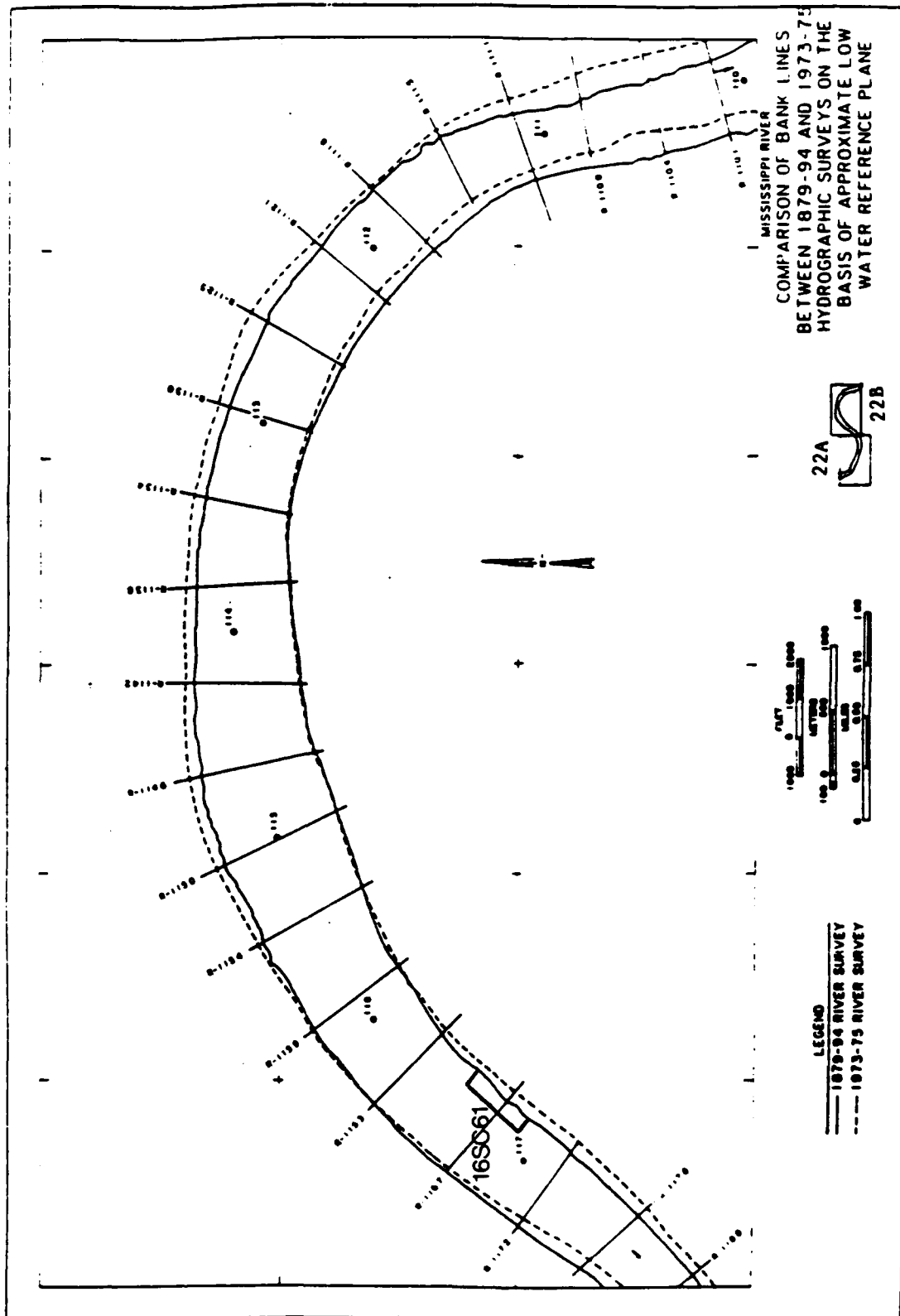


Figure 6. Mississippi River channel migration between river miles 118-110 (from Britsch and Dunbar 1990:59).

the natural levee that is actively being cut by the river, and is just upriver from a point bar. At the actual location of 16SC61, approximately 100 m of natural levee have been lost to channel migration during the time represented by this study. Between the time of fieldwork in 1987 (Shannon et al. 1988) and the 1992 fieldwork reported in this volume, it appears that an additional 20 m were lost. However, all of this loss cannot be attributed to erosion because the area was graded for revetment prior to the 1992 field session.

Geomorphology, Site Location and Site Function

Figure 1 shows that at present the ten-foot contour line is situated only about 100 m landward of 16SC61, and the five-foot contour line is only about 500 m further south. Thus, the site is located on the highest part of the Mississippi River natural levee. It is here that European occupation concentrated beginning in the 1720s. Habitats further from the river were generally utilized only for the exploitation of the various flora and fauna discussed in Chapter 3.

There appear to be two primary reasons why Europeans settled on the natural levee adjacent to the Mississippi River. The first was that elevations were higher so that settlements there were less endangered by flooding. However, even the building of artificial levees did not completely alleviate the dangers of high river levels. The second reason was that the Mississippi River was the main link for residents of the area with each other and with markets. It represented the only reliable regional thoroughfare during the eighteenth and much of the nineteenth century.

An examination of the Louisiana State Site Files, however, indicates that prehistoric settlement patterns in the vicinity of 16SC61 may have been very different. Few sites have been reported on the Mississippi River natural levee, and based on the quantity and nature of the artifacts recovered these may have been ephemeral and relatively late. One problem with this observation is that relatively rapid deposition rates may have buried earlier sites. Nevertheless, it appears that prehistoric sites tend to be located on the smaller natural levees associated with distributary channels of the main course of the river.

Saucier (1963a) suggested that occupation at these locations began after maximum natural levee development and at the point that the channel was less active. He

hypothesized that the lower reaches of these partially abandoned streams were desirable site locations because flood frequency was lower, fresh water was available, and the location allowed convenient access to swamps and marshes and to fresh and brackish lakes. The following chapter discusses the diverse floral and faunal communities available in these areas. That diversity, which is related to only slight differences of elevation that are the result of the geomorphic history of the region, appears to have attracted Native Americans to these lower lying areas.

CHAPTER 3

NATURAL SETTING OF 16SC61 AND ITS ENVIRONS

Geographic and Physiographic Setting

16SC61 is located on the Mississippi River natural levee which in this area forms the northern boundary of the Barataria Basin. The basin itself encompasses approximately 400,000 hectares (990,000 acres), and is approximately 129 kilometers (80 miles) long. Several large, shallow lakes are situated within it. These lakes are interconnected by bayous and surrounded by marshland. The marshland is bordered by higher ground that is the result of alluvial deposition from formerly active Mississippi River distributaries. In addition, natural levees associated with smaller distributaries are present within the marsh (White et al. 1983:101-102, and Chapter 2).

The Barataria Basin is a broad, low-lying region characterized by a set of ecological parameters which are integrated into a dynamic ecosystem with enormous biological productivity. The prime integrating feature of this ecosystem is water. Primary units of the system are forests, fresh water marshes, brackish marshes, saline marshes, and the offshore area (Bahr and Hebrard 1976:1-3). As was noted in Chapter 2, these various units appear to have attracted prehistoric inhabitants of the region. However, European settlers were attracted by the possibility of exploiting the agricultural potential of the Mississippi River natural levee and by the access to markets which the river could provide. At the time of initial European settlement in the vicinity of 16SC61, the newly established entrepot of New Orleans was located only about 22 river miles away.

Climate

The climate in the vicinity of 16SC61 is typified by long, hot, and humid summers. Winters are relatively warm, but occasional incursions of cool air do occur (McDaniel 1987:2-3). The mean annual temperature is about 21 degrees Centigrade (70 degrees Fahrenheit), with a mean low in January averaging 11 degrees Centigrade (52 degrees Fahrenheit) and a mean high in July of about 29 degrees Centigrade (84 degrees Fahrenheit). The growing season exceeds 260 days (White et al. 1983:103).

The site is located within the Subtropics, and its weather is strongly influenced by the nearby Gulf of Mexico. Rainfall in the area exceeds 160 cm (64 inches) annually. Periods of greatest rainfall generally occur in August and September. October is, on average, the driest month (White et al. 1983:103). Hurricanes and storm surges occur intermittently, and these have profound effects on floral, faunal, and human communities.

Soil Units

Soils at 16SC61 are characterized by McDaniel (1987:23) as "Convent and Commerce soils, frequently flooded" (McDaniel 1987:23). He describes them as "...gently undulating and somewhat poorly drained." These soils characterize the narrow strip of batture between the levee and the river where flooding occurs at least once a year. They are silt loams and very fine sandy loams at the surface, and are underlain by silt loams (McDaniel 1987:23).

Several soil types occur on portions of the Mississippi River natural levee protected from flooding. At high and intermediate elevations, Commerce silt loam is common, and it is present in a linear band landward of the artificial levee in the vicinity of 16SC61. It consists of silt loams of varying color and alkalinity to a depth of approximately five feet. This soil is high in fertility and well suited to a variety of crops including sugarcane (McDaniel 1987:18). At greater distances from the river, soils near 16SC61 are characterized as Sharkey silty clay loam or as Sharkey clay. Like the Commerce silt loam, these soils are suited to agriculture. However, agricultural productivity of all three soil types is somewhat limited by wetness (McDaniel 1987:18, 28-29). Early European settlers in the region experimented with a variety of crops in the eighteenth century. By the early 1800s, sugar cane and to a lesser extent rice predominated. The suitability of natural levee soils for cultivation of the former was an important factor that helped enable the development of a regional economy based on large plantations.

Floral Communities

Elevation of the land in the region that includes 16SC61 dramatically affects distribution and composition of plant communities. Differences of only a few centimeters of elevation are associated with striking

changes in vegetation. This is largely the result of the effects of soil saturation (White et al. 1983:103).

Deposition associated with the Mississippi River resulted in a strip of relatively high land, the natural levee (Chapter 2). Prior to cultivation, this area supported a floral community similar to that which is characterized at present as the "upland forest."

Plant communities similar to that which would have characterized the natural levee remain present on the Pleistocene terrace north of Lake Pontchartrain. Natural climax vegetation in such forests is dominated by mixed deciduous and evergreen trees. Woody species in a natural levee forest would have included oaks (*Quercus virginiana*, *Q. alba*, *Q. nigra*), shagbark hickory (*Carya ovata*), hackberry (*Celtis laevigata*), sweetgum (*Liquidambar styraciflua*), pecan (*Carya illinoensis*), magnolia (*Magnolia spp.*), and possibly some conifers (Bahr et al. 1983:82). These natural levee forests were generally cleared during the 1700s.

Beyond this highest portion of the natural levee, elevation declines. At slightly lower elevations, a bottomland hardwood forest occurs. This would have characterized natural levees associated with Mississippi River distributaries and possibly areas of lower elevation on the natural levee associated with the river itself.

Bottomland hardwood forests are dominated by the water oak (*Quercus nigra*). Subdominants include the sweet gum (*Liquidambar styraciflua*), hackberry (*Celtis laevigata*), and live oak (*Quercus virginiana*). Other forest species include the box-elder (*Acer negundo*), honey-locust (*Gleditsia triacanthos*), American elm (*Ulmus americana*) and the Nuttall oak (*Quercus nuttallii*). The most common shrub species are palmetto (*Sabal minor*) and green haw (*Crataegus viridis*), but thickets of possum-haw (*Ilex decidua*) also occur. Within forest gaps, elderberry (*Sambucus canadensis*) and French-mulberry (*Callicarpa americana*) occur. Introduced species such as the camphor tree (*Cinnamom camphora*) are also present (White et al. 1983:103-104).

Vines are found throughout the bottomland forest, and few trees are observed without them. The most common of these include poison-ivy (*Rhus toxicodendron* var. *vulgaris*), Virginia creeper (*Parthenocissus quinquefolia*), supple-jack (*Berchemia scandens*), pepper-vine (*Vitis rotundifolia*), muscadine (*Vitis*

rotundifolia), and hemp-weed (*Mikania scandens*) (White et al. 1983:104).

Between the bottomland hardwood forest and the "cypress-tupelo" swamp forests (below), an intermediate swamp forest sometimes occurs. It can be extensive due to the gradual slope of the land. Swamp red maple (*Acer rubrum*), American elm (*Ulmus americana*), and water oak (*Quercus nigra*) are common here. Palmettos create a dense understory, which is nearly impenetrable in some locations (White et al. 1983:105).

A "cypress-tupelo" forest would have been present in areas parallel to the intermediate swamp forest community but at slightly lower elevations. The cypress-tupelo swamps are dominated by bald cypress (*Taxodium distichum*) in areas where it has been re-established after logging. Water tupelo (*Nyssa aquatica*) is often either a sub- or co-dominant species. Red maple (*Acer rubrum* var. *drummondii*) and ash trees (*Nyssa aquatica*) represent the other sub-dominants in this community. Shrubs include wax-myrtle (*Myrica cerifera*) and button-bush (*Cephalanthus occidentalis*), while vines are cat-briar (*Smilax* spp.), trumpet-creeper (*Campsis radicans*), and poison ivy. Herbaceous ground cover includes smart-weed (*Persicaria punctata*), alligator-weed (*Alternanthera philoxeroides*), swamp potato (*Sagittaria lancifolia*), and water hyacinth (*Eichhornia crassipes*) (White et al. 1983:105).

The predominant plant community at greater distances from the river is the marsh. Marshes are categorized according to their degree of salinity. The areas covered by the various marsh communities have certainly changed through the period of prehistoric occupation due to variation in fresh water influx compared to salt water intrusion.

The ecological distinction between a swamp and a marsh is the absence of trees in the latter. Marsh soils are peat and muck, and elevation of these is less than one meter above mean sea level. Cord grass (*Spartina patens*) is dominant in the brackish or intermediate marsh, while swamp-potato (*Sagittaria lancifolia*) predominates in freshwater marsh. Numerous other species co-occur with these (White et al. 1983:106-107).

Faunal Communities

Important fur-bearing species present in the region where 16SC61 is located are the muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), mink (*Mustella vison*), and otter (*Lutra canadensis*). Nutria (*Myocastor coypus*) are a recent introduction and were not present during the prehistoric or historic periods.

Other indigenous mammals known to occur in the area include the Virginia opossum (*Didelphis virginiana*), the swamp rabbit (*Sylvilagus aquaticus*), the fox squirrel (*Sciurus niger*), the fox (*Vulpes fulva*), the bobcat (*Lynx rufus*), the beaver (*Castor canadensis*), the civet cat or spotted skunk (*Spilogale putoris*), and the white-tailed deer (*Odocoileus virginianus*). In addition, several species of terrestrial rodents and of bats are endemic (Bahr and Hebrard 1983:118-126). The mammalian faunal inventory would have been even more extensive during the prehistoric period (Speaker et al. 1986:26-29).

At least 216 species of birds are known to occur in the area. Approximately 43% of these are passerines. Some species of this group are permanent residents, while others are only present seasonally. The remainder of the 216 species are predominantly waterfowl, many of which are migratory (Bahr and Hebrard 1976:6-7, 78-115).

Although the Mississippi River supports various species of freshwater fish, it is relatively unproductive because of high turbidities and strong currents. Freshwater sport species presently exploited include largemouth bass, spotted bass, yellow bass, black and white crappie, bluegill, spotted sunfish, and redear sunfish, as well as warmouth, channel, flathead, and blue catfish. Commercially exploited fish include catfish, blowfin, carp, gars, and buffaloes (U.S. Army Corps of Engineers 1984:16-17).

Distributaries and estuaries within the Barataria Basin south of 16SC61 host a diverse assemblage of species of fish. They are highly mobile, and seasonal movements of fish populations are widespread. The result is that marine fish penetrate inland to fresh water habitats, while fresh water species are sometimes found in more saline environments. Also, the lower reaches of freshwater streams probably serve as nursery areas for the young of some marine species (Bahr and Hebrard 1976:69).

The region that includes 16SC61 hosts at least 26 reptilian species, of which 14 are snakes. The American alligator (*Alligator mississippiensis*) and various species of turtle are common. At least 14 species of amphibians occur or are likely to occur in the Basin. Most of these are frogs and toads (Bahr and Hebrard 1976:74-77).

CHAPTER 4 ABORIGINAL OCCUPATIONS IN SOUTHEASTERN LOUISIANA

The Poverty Point Period

Few sites dated to the Paleo-Indian or Archaic Periods have been reported in southeastern Louisiana. Although land formation was occurring during the Archaic Period (Chapter 2), sites are probably either deeply buried or in some cases reworked by riverine activity.

The earliest known sites in the vicinity of 16SC61 are dated to the Poverty Point Period. One of these (the Linsley Site, 16OR40) is in Orleans Parish, and it is situated on a buried natural levee associated with an earlier course of the Mississippi River. Material dredged from the subsided *Rangia* midden was used to define the Bayou Jasmine-Garcia Phase of the Poverty Point Culture (Gagliano et al. 1975:44-47). A series of radiocarbon dates and baked clay balls are evidence that link the site with the Poverty Point period (Weinstein 1978:A/23-A/25; Thomas 1982:3). Another important site representing this period and phase, and which is somewhat closer to 16SC61, is the Bayou Jasmine Site. It is located near Lake Pontchartrain in St. John the Baptist Parish (Duhe 1977).

The name "Poverty Point" is derived from the type site (16WC5), an area of massive earthwork construction, in northeastern Louisiana. This site is believed to have been a cultural center with trade networks and influence extending throughout the Lower Mississippi Valley. Baked clay balls known as "Poverty Point objects" are one of the important traits that mark the period. Other traits include an elaborate lapidary and microlithic industry, use of steatite vessels, and the use of exotic stone (Thomas 1982:5).

The Tchula Period

Tchula period occupations in the Lower Mississippi Valley are associated with the Tchefuncte culture. The period has been called "the early ceramic period" because, with the exception of fiber-tempered pottery, it was the interval during which initial pottery complexes appeared in the Lower Mississippi Valley. Sites are few and scattered, and there are no universal markers. However, within subareas such as South Louisiana, regional markers, primarily Tchefuncte type ceramics, have been identified (Phillips 1970:7,8,15,76).

Peoples of the Tchefuncte culture were the first to engage extensively in the manufacture of ceramics. Fiber-tempered and some grog-tempered or temperless sherds have been recovered from earlier Poverty Point contexts. These may represent primarily trade goods from the earliest pottery-making cultures to the east. The basic Tchefuncte ware is temperless or grog-tempered, with accidental inclusions of small quantities of sand and vegetable fiber. Sand-tempered wares represent a minority constituent of Tchefuncte site assemblages (Shenkel 1984:47-48).

The Marksville Period

The Marksville period is associated with a Hopewellian culture and tradition manifested throughout the Lower Mississippi Valley (Phillips 1970:7,17-18,886). The Hopewell culture's two major centers of development were in Ohio and Illinois, and date to between 200 B.C. and A.D. 400. Diffusion of aspects of the culture may have resulted from the activity of traders who established a wide-ranging network, sometimes termed the "Hopewellian Interaction Sphere."

In addition to diagnostic pottery types of the Marksville period, conical burial mounds were characteristic of the culture. Interments are generally associated with grave goods. Some of these were manufactured from exotic raw materials (Neuman 1984:142-168).

The Baytown Period

The Baytown period has been defined as the interval between the end of Hopewellian/Marksville culture and the emergence of Coles Creek culture. In the southern half of the Lower Mississippi Valley, there are no area-wide horizon or period markers (Phillips 1970:901).

The Baytown period is sometimes referred to as the "Troyville period" by archaeologists in Louisiana. Because of the lack of diagnostic markers for the period in southeastern Louisiana, it is often assimilated with the subsequent Coles Creek period, and the two are together referred to and discussed as "Troyville/Coles Creek cultures" (e.g. Neuman 1984).

The Coles Creek Period

The Coles Creek period is the interval that begins with the emergence of Coles Creek culture in the southern part of the Lower Mississippi Valley and ends with the establishment of "full-blown" Mississippian culture in the northern part

of the Valley (Phillips 1970:18). Although it appears to represent a population zenith in the eastern delta province, many sites tentatively classified as Coles Creek may actually be from the Baytown period (Wiseman et al. 1981:3/5).

Coles Creek culture was characterized by small ceremonial centers with mounds. These were surrounded by villages of varying size. The culture developed in the area between the mouth of the Red River and the southern part of the Yazoo Basin. Its influence filtered into the delta region of southeastern Louisiana (Brown 1984:95).

Mounds associated with the Coles Creek culture generally are larger and exhibit more construction stages than those associated with the earlier Marksville culture. A more significant difference is that Coles Creek mounds are pyramidal and flat-topped, and they were used as substructures for religious and/or civic buildings (Neuman 1984:167).

The Mississippi Period

The beginning of the Mississippi period is marked by the emergence of Mississippian culture in the northern part of the Lower Mississippi Valley and Plaquemine culture in the southern part (Phillips 1970:18-19). The Plaquemine culture itself is sometimes considered to be the classic development of temple mound construction in the lower portion of the Lower Mississippi Valley. However, archaeological excavations suggest that it actually represents the culmination of developments of the preceding Coles Creek culture. Multi-mound construction and artifact assemblages are evidence that link the two. Absence of European trade goods indicates that the Plaquemine culture reached its zenith prior to contact (Neuman 1984:258-259). Sites dated to the period of contact represent a Delta-Natchezan phase. Proportions of ceramic types change, some new styles and types appear, and European trade goods are often found in association with the aboriginal materials (Quimby 1957:118-119, 134-144).

Aboriginal Occupation during the Colonial Period

Identities and locations of Indian tribes in Louisiana cannot be determined for any period prior to about 1700 when literate French settlers and visitors began to record their observations regarding aboriginal occupants of the area. Despite these accounts, it remains difficult to sort pre- and post-contact culture traits. This is especially true for the lesser tribes living along the Mississippi River and

other areas within southeastern Louisiana (Kniffen et al. 1987:45).

The protohistoric and early historic periods were traumatic for aboriginal society in southeastern Louisiana. The effects of disease and of the ever-increasing European population are reflected in the declining aboriginal population and in the migrations by remnants of various tribes. Internecine warfare typified relations between the various groups (Giardino 1984).

CHAPTER 5
HISTORICAL OVERVIEW OF THE AREA NEAR 16SC61
by Benjamin Maygarden

Although LaSalle had claimed for France all of mid-continental America drained by the Mississippi in 1682, France initially did little to develop the new territory. Louis XIV was preoccupied with wars and court extravagances until shortly before the start of the eighteenth century. In 1698, Pierre Le Moyne d'Iberville, accompanied by his younger brother Jean-Baptiste Le Moyne de Bienville, was sent to establish French sovereignty over the Mississippi Valley and the Gulf Coast in the vicinity of the river's mouth. Bienville established Fort Maurepas at Biloxi Bay in 1699, and the following year he founded Fort de la Boulaye on the east bank of the Mississippi River somewhere within present-day Plaquemines Parish. Both sites were abandoned within a few years, and a settlement at Mobile became the center of French activity (Wilson 1987:1).

In 1712, the French crown granted Crozat a monopoly on economic affairs of the languishing settlements. Crozat's charter granted him commercial, mineral, and fur trading privileges, and it authorized him to send one shipload of African slaves annually for sale to the colonists. In turn, Crozat's obligation was to send two vessels of colonists each year. Crozat was relying on commercial profits to finance his enterprise. However, anticipated profits from exploitation of mineral resources and from the fur and Indian trade were not forthcoming. Crozat's only reliable market was the approximately 700 settlers scattered through the colony (Clark 1970:14-16).

In 1717, Crozat's financial failure forced him to give up his commercial monopoly on the colony. Louis XIV had died in 1715, and France was now ruled by the Regent Phillipe, Duc d'Orleans, whose financial advisor was John Law. Law's Company of the West, involved in French commercial and financial ventures throughout the world, assumed responsibility for the Louisiana colony in 1717 (Clark 1970:17). That same year, the Company directed that a city named New Orleans be established on the Mississippi River some thirty leagues from the mouth (Wilson 1987:3-4).

16SC61 lies at the downriver end of the German Coast, originally one of John Law's concessions in Louisiana. Law had other concessions at the confluence

of the Arkansas and Mississippi Rivers; on the Mississippi below New Orleans; and on the Gulf Coast. In 1720, Law recruited emigrants from a number of German-speaking localities in Europe to settle on his concessions. Law's Company of the West disseminated propaganda to counter a negative image of settlement prospects in French Louisiana, including a well-known pamphlet printed in Leipzig in 1720 that exaggerated the munificence of the landscape. In the pamphlet, Louisiana was depicted as a land overflowing with game, filled with mines of gold, silver, copper and lead, as well as herbs and plants to provide "healing remedies for the most dangerous wounds, yes, also, so they say, infallible ones for the fruits of love" (quoted in Voss 1928:8-9). As appealing as this description may have been to potential settlers, the depressed and disrupted economy in much of Germany was doubtless the major impetus for most of Law's recruits.

Approximately 2,600 people (Le Conte 1967:73), mostly in family units or entire villages, were recruited in Alsace, Lorraine, the Pfalz, Baden, Wurttemberg, Mainz, Trier, and Switzerland. These German-speaking emigrants included recruits for the Swiss regiment in Louisiana and workers designated for the army (Blume 1990:9). Many of the settlers died before leaving French ports and many more died upon arrival in the New World at Biloxi and Dauphin Island (Voss 1928:9-10). The settlers were to be established at Law's concession at the Arkansas River. The majority of them went as *engages*, a kind of indentured servant, under contract with Law. Left at the Arkansas without plows, oxen, cows, or wagons, the effort of the settlers was a failure and after a few months the Germans departed downriver for Law's concession at English Turn. When news reached the settlers of the collapse of the "Mississippi Bubble" and Law's fall from grace, most went to New Orleans and demanded return to France. Bienville convinced them to stay. On his own authority he granted them concessions on lands belonging to the Company of the Indies, which had supplanted Law's Company of the West. The area granted for settlement was located between *L'ance aux Outards* (the vicinity of present-day Destrehan) and the *Lac des Ouaches* (Lake Salvador) on the west bank of the Mississippi, and the Germans relocated there in June and July 1721 (Le Conte 1967:77).

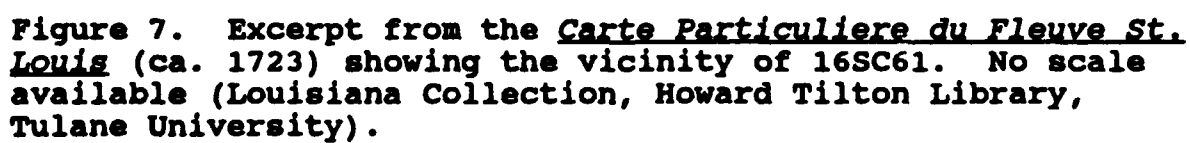
Also in June 1721, a group of independent German settlers, under the leadership of a Swedish soldier of fortune named Karl Friedrich D'Arensburg, arrived at

Biloxi. They settled in the same area on the west bank as the previous German arrivals. This area of German concentration became known as *La Cote Des Allemands*, the German Coast, or simply *Les Allemands*. Bienville placed D'Arensburg in command of the area, and the census of May 1722 indicates that a population of 257 persons of all ages and sexes had been established in three villages upriver from present-day Hahnville. In late 1722 (Le Cote 1967:80), a hurricane forced water from *Lac Des Allemands* into the settlements, causing many of the Germans to locate closer to the Mississippi River, and some to leave the German Coast. The 1724 census revealed a decline in population to 169 persons in 56 families, only six of which had cows and none of which had horses (Blume 1990:23-26).

The farms of these settlers in the 1724 census were small, ranging only three to eight arpents front. A total of some 113 arpents had been cleared on the German coast. The small size and rudimentary development of the German Coast establishments relative to the larger concessions downriver towards New Orleans was marked. By 1724, the commercial production of indigo had begun on these larger concessions which had relatively large numbers of slaves (Blume 1990:35-36).

The Carte Particuliere du Fleuve St. Louis (Figure 7) indicates that none of the Germans were settled in the vicinity of 16SC61 at about the time of the 1724 census. Unsettled lands conceded to Sieurs Tessandier, Dauphin, and Drapeau were located in this area, as was the *habitation* of Sieur Desjan. Examination of French colonial census tables did not provide any additional information on Sieur Desjan, nor did they indicate that his *habitation* survived through the 1720s (Maduel 1972).

The German settlers were no longer engaged by 1724; rather, when the Company of the Indies assumed proprietorship of the concession, the settlers became *cessionnaires*. They were obliged to grow corn and wheat and to sell their produce to the Company, and purchase from it the necessities of life at fixed prices. Upon the dissolution of the Company of the Indies in 1731, the settlers became proprietors of their individual concessions. After 1731, they increasingly switched to cultivating fruit trees and vegetables, and to raising poultry and cattle. This resulted in an improvement of their prosperity. By the census of 1731, the population of the German settlement had increased to a population of 267 inhabitants, plus 120 African-



American slaves. Forty-nine of the 68 concessions had cattle, totaling 159 head (Blume 1990:47).

Other German-speaking settlers arrived on the German Coast in the eighteenth century. These included both Swiss soldiers and a large group from Lorraine in 1754. Governor Kerlerec noted of the latter group:

I have received the families from Lorraine by the Concord. They are established aux Allemands and work well. Many like those who would be necessary for the advancement of the colony -- families accustomed to working the soil, whose energies would redouble in a country where the revenues would belong to them without the burden of taxation (quoted in Deiler 1975:105-106).

Alsatian immigrants also arrived in the 1750s. They, like the settlers from Lorraine, were probably bilingual, speaking both French and German. A number of Catholic German families arrived from Maryland in 1774. The result of population growth through immigration and native increase was an expansion of the "German Coast" into areas up, down, and across the Mississippi River. It now encompassed an area bounded by Lake Maurepas to the north, Lake Pontchartrain to the east, and Bayou des Allemands to the south. In 1745, 100 German families were enumerated on the coast.

The area immediately around 16SC61, at the lower end of the German Coast (lower St. Charles Parish), was probably not a locus of German settlement during the French colonial period. Available documents do not indicate whether the area was utilized as part of a large concession for the commercial production of indigo. Indigo was most efficiently produced on tracts of larger size (probably greater than 25 arpents), and required a considerable amount of expertise and capital in its commercial production.

The characteristic pattern of agricultural activity on the German Coast, by contrast, was small farms, a pattern which continued for decades. Redon de Rassac wrote in 1763:

The so-called German Coast furnishes a lot of rice to the city, many vegetables, corn, milk products and poultry, but very little indigo and sugar. This is because the inhabitants do not have enough negroes at their disposal

although they are the best workers in the colony (quoted in Blume 1990:67).

By the 1760s, indigo production was the dominant economic activity on the larger plantations and had spread to the plantations of the lower German Coast, and even to some smaller farms on the west bank (Blume 1990:84).

Despite the economic disadvantages faced by the German Coast settlers, the censuses of 1766 and 1769 indicate that it was an area of healthy economic development. By 1769, the number of inhabitants numbered 2016 of whom 1268 were whites, eight were Free Persons of Color, and 740 were African-American and Native American slaves. Of the 220 family heads, 52 were French, 90 were Creoles from Canada and Louisiana, 66 were German, and 12 were "foreign" (Blume 1990:81). The census indicates that individuals of German heritage were already in a minority by this date. Intermarriage and acculturation would continue to reduce the German ethnicity of the region in the following decades.

Jeffreys, writing at the end of the French colonial period, described the prosperity of the German colonists:

Ten leagues before the stream reaches New Orleans is the settlement of the Germans, who after the disgrace of Mr. Law, abandoned his plantation at Arkansas, and obtained leave of the council to settle in this country. Here, by means of their application and industry, they have got extremely well cultivated plantations, and are the purveyors of the capital, whither they bring, weekly, cabbages, salads, fruits, greens and pulse of all sorts, as well as vast quantities of wildfowl, salt pork, and many excellent sorts of fish. They load their vessels on the Friday evening, towards sunset, and then placing themselves two together in a pirogue, to be carried down by the currents of the river, without ever using their oars, arrive early on Saturday evening at New Orleans, where they hold their market, whilst the morning lasts, along the bank of the river, selling their commodities for ready money. After this is done, and when they have provided themselves with what necessaries they want, they embark again on their return, rowing their pirogues up the

river against the stream reach their plantations in the evening with provisions, or the money arising from the produce of their labours (Jeffreys 1761:147, sic throughout).

Inhabitants of the German Coast were opposed to Spanish rule because they expected economic dislocation to result from restrictions on trade imposed by the Spanish. In 1768, D'Arensburg, still in *de facto* command of the German Coast, arrested a messenger from the Spanish governor, Lt. Gen. Don Antonio de Ulloa. The German Coast settlers rose in an insurgency. On October 28th, a body of men marched on New Orleans. They were joined by some Acadians, making perhaps 400 men in all. They forced their entry at the Tchoupitoulas gate of the city. Ulloa fled, but his successor, Don Alejandro O'Reilly, rapidly quashed the uprising and executed a number of leaders. D'Arensburg himself was pardoned.

By the following decade the German Coast inhabitants were increasingly willing to cooperate with Spanish authority. In 1773, the British appeared on the German Coast, causing concern over their encroachment, as would the possibility of American encroachment later in the period of Spanish rule in Louisiana. In 1779, during the American Revolution, Governor Bernardo de Galvez spent a period of time with his troops on the German Coast before proceeding upriver to Baton Rouge. His recruiting efforts were so successful that he remarked that "On the German Coast, only old men are left" (quoted in Blume 1990:129).

Substantial social and economic changes marked the decades of Spanish dominion. The German ethnic groups in the region were increasingly assimilated into the surrounding French culture. This was largely the result of their status as a numerical minority and their willingness to intermarry with those of French extraction. However, the names of German settlers, often transliterated or translated into French, remain common in the region into the present. Then too, they remained sufficiently distinct as a population for late-eighteenth and early-nineteenth century observers to remark on their physical appearance and manners. Berguin-Duvallon, who was critical of many Louisiana residents, remarked:

The Germans are somewhat numerous, and are easy to be distinguished by their accent, fair and fresh complexion, their inhospitality, brutal manners, and proness to intoxication. They are, however, industrious and frugal (Davis 1806:78).

Another writer of the same period, C.C. Robin, stated:

These Germans living among the French have retained their taciturn character, their language and their manners. They do not have that open and affectionate countenance of the French. They are stingy but well behaved. They work their own farms, without Negroes, and although originally northern they have become well acclimated. Yellow fever never bothers them because they work. This malady strikes those who in New Orleans live in inactivity or in the too active state of passion and intemperance (Robin 1966:114).

M. Perrin du Lac, writing in 1805, contrasted the lassitude and squalor of the Acadians with the hospitality and good order of the German Coast (Perrin du Lac 1805:377-379).

The last decade of the eighteenth century saw the demise of indigo production in the lower Mississippi delta. Sugar became the leading commercial crop of lower Louisiana. By 1805, sugar had already supplanted indigo in those areas at and below the lower portion of the German Coast (Perrin du Lac 1805:380-381). Under American rule, the cultivation of sugar was the basis of the lower German Coast economy until the Civil War. African-American slaves were the workers whose labors enabled a small planter population to dominate the area's economic and political life. From 1810 to 1820, the slave population of St. Charles increased almost 30%, from 2,321 to 2,987, while the white population actually declined from 820 to 727. Between 1820 and 1830, the slave population increased some thirty-eight per cent, from 2,987 to 4,118. During the remaining antebellum decades the white population of St. Charles remained remarkably stable, while the slave population fluctuated but did not grow greatly (Blume 1990:142).

In January 1811, some slaves on the east bank of the German Coast pillaged and burned a number of plantations. A force of militia and regular army troops was dispatched from New Orleans, but the insurgents had

been dispersed by an armed group of local planters before the troops arrived. Again in December 1811 the militia was raised on the fear of an insurrection on the German Coast, which did not materialize. Another insurrection in 1826 required that U.S. regulars be sent from New Orleans to the German Coast to restore order. An unfounded fear was widespread that the German Coast would witness a major uprising in the wake of Nat Turner's revolt in 1831 (Young 1974:208-218).

The antebellum decades saw the establishment and growth of many of the large St. Charles Parish plantations, some of which survived the devastating loss of slaves and capital equipment brought about by the Civil War. In the spring and summer of 1860, J. W. Dorr, a journalist for the New Orleans Crescent, made a horse and buggy tour of much of Louisiana, and had a number of comments on St. Charles Parish.

Along the levee road as smooth as the New Canal shell road, a constant succession of wealthy estates keep the interest alive... Splendid old homesteads dot the road at the distance of a quarter of a mile apart, the out-buildings, negro quarters, etc. forming at each a considerable village... It is no use for me to attempt to describe any of the splendid residences of the princely planters... All that tasteful architecture, ornamental shrubbery, and magnificent moss-hung trees can do towards the beautifying of the sugar planters' residences in Jefferson and St. Charles Parishes, as far as I have been, is effected (quoted in Prichard 1938:1113).

Dorr was a careful observer and recorder of conditions in St. Charles. He reported that 45,884 acres of the Parish's total area of 81,413, representing approximately 56%, were under cultivation. He estimated that about 38,000 acres were in cane, 6000 in corn, and a mere three or four hundred in rice. The value of real estate held by residents of the Parish was \$1,646,900, and of non-residents \$56,366. Slaves in the Parish were valued at \$2,053,300, cattle at \$25,200, carriages and vehicles at \$8450, and capital invested in trade, at only \$15,000. Only five stores were listed for the whole Parish, leading Dorr to comment that "'merchandising' is a very inferior interest in these parts". The total Parish population was about 5000, of whom about 900 were whites, 3719 were slaves, and 200

were Free People of Color (quoted in Prichard 1938:1114).

The Civil War was to have a profound impact on St. Charles Parish despite the fact that only minor engagements between Federal and Confederate troops occurred in the area. In the statewide referendum on the issue of secession, St. Charles voted by a small majority to secede. All of the surrounding parishes voted to stay in the Union (Yoes 1973:78). The vote to embrace the consequences of secession would be full of bitter irony for the plantation society described by Dorr in 1860.

During the first four months of 1862, fear of a Federal invasion of the lower parishes increased. Desiring to bolster resources for active defense, St. Charles Parish added a \$40 bounty to that of \$50 already paid by the Confederate government for volunteers. The militia was revived in a desultory fashion, as events would prove. Following the fall of New Orleans in April 1862, Federal troops and gunboats appeared on the German Coast.

The line of the New Orleans, Opelousas, and Great Western Railroad (N.O., O., & G.W.R.R.) went from Algiers to St. Charles Station, in Jefferson Parish, west-southwest to Boutte Station, and then southwest to Des Allemands Station. The Federals rapidly proceeded down the rail line and captured Boutte Station and Des Allemands Station, establishing a post of 150 men at the latter. In August 1862, Federal troops mounted expeditions against Confederate forces in the Lafourche area as well as upper and central St. Charles Parish, using the Boutte rail line for their movements. During these troop movements, numerous German Coast plantations were plundered by badly disciplined Federal troops of the 8th Vermont Regiment, responsible for guarding the 32 miles of the N.O., O., & G.W.R.R. between Algiers and Des Allemands (Lathrop 1968:62). Most notable of the residences of the planters to fall victim to marauding Union soldiers was Fashion Plantation, below Hahnville, the home of Confederate Brigadier General Richard Taylor, son of Zachary Taylor. Taylor's mementoes of his father, including documents and personal items, were all lost. The Federal troops in the area were only ineffectually engaged by local militia and guerillas (Lathrop 1968:66-67).

Taylor was incited to complain about the plundering activities of Federal troops to Benjamin Butler,

commanding in New Orleans. Butler subsequently issued special orders against the taking of private property by soldiers for their own use (Lathrop 1968:68). In September 1862, the Confederates mounted a more significant challenge to the Federal presence in the area. The Terrebonne Regiment of militia, and a battalion of Rangers from Texas and Rapides Parish, under Major James A. McWaters, and the St. Charles militia under Brigadier General John G. Pratt, set out to capture Boutte Station and Bayou des Allemands. Boutte Station was found to be deserted, but a body of Federal troops was discovered on the rail line proceeding towards Algiers. The Confederate forces ambushed the train, but another Federal train arrived on the scene from Algiers, and both Federal trains moved back towards Algiers.

Major McWaters moved his troops to the vicinity of the St. Charles courthouse where they had the misfortune to be pinned against the backswamp by troops of the 21st Indiana and 4th Wisconsin, sent by boat above the courthouse while the 14th Maine, 9th Connecticut, and 6th Michigan, with two sections of Thompson's artillery, arrived below. Gunboats on the river assisted the Federal advance. The Texans fled into the swamp in the face of poor odds, and most escaped without their horses, many of which had to be shot when they could not be extricated from the mud (Winters 1963:156-157).

For the remainder of the war, St. Charles Parish was not a scene of notable military activity. The New Orleans, Opelousas, and Great Western Railroad was later guarded by the Federal First Louisiana "Native Guard" regiment (African-American troops) (Davis 1964:143) and their muster rolls might have included former slaves of the vicinity. At the least, their example would have had a psychological impact on a population undergoing traumatic social change.

The antebellum society of the sugar-producing parishes was devastated as a result of the massive loss of capital entailed in the freeing of slaves, the destruction of sugar houses and their refining equipment, wagons, and livestock. The immediate requirements for sustenance produced a shift to rice growing, which became commercially established in the post-war period. Although sugar cultivation recovered somewhat under peacetime conditions, rice became the principal cash crop of the region after the war. In 1871, considered the best crop year to date since the war, St. Charles Parish produced 5,527 hogsheads of

sugar, compared to 18,191 hogsheads in the last "prewar" crop year of 1862. By 1873, rice production figures by Parish were included in the annual Bouchereau report on sugar production and reveal that the west bank of St. Charles Parish produced 2,395 hogsheads of sugar and the Parish as a whole 2,699 hogsheads; 4,392 barrels of rice were produced on the west bank of St. Charles and 5,402 in the Parish as a whole. In the following year, the west bank of St. Charles produced 7,204 barrels of rice and the entire Parish produced 17,047 barrels. The 1874 sugar crop for St. Charles Parish totaled 3,922 hogsheads, of which 2,699 were produced on the west bank. In 1876, 10,584 barrels of rice and 4,127 hogsheads of sugar were produced on the west bank of St. Charles Parish. Many farmers never returned to sugar production. Some large west bank plantations like Lone Star, Louisa, and Davis (all located only a short distance upriver from 16SC61), and Alice (adjacent to and below the site), remained undivided and continued to produce sugar on a commercial scale into the twentieth century.

Other industries, noticeably timber, became prominent on the west bank of St. Charles Parish after the Civil War. The lumber industry carried over into the twentieth century, but by World War I the supply of cypress on which it was based had been depleted.

The post Civil War economic recovery of the Parish occurred in a demographic context of decreasing population. Overall, population growth in St. Charles lagged behind that of the state as a whole before 1900 (Yoes 1973:131). The labor problem brought about by the dissolution of slavery led to the introduction of sharecropping and to the use of hired labor. In 1880, St. Charles Parish was the scene of one of the first, as well as one of the largest and most disruptive, labor strikes in Louisiana. In March, African-Americans working on the Whitehead and Duggan plantations struck for higher wages, demanding an increase from 75 cents to \$1.00 a day. The strike spread down the west bank until eighteen plantations were affected. The strikers became well-armed and the white population was terrified. On March 19th, federal troops were sent from New Orleans. The strikers were over-awed by the troops and the strike collapsed. The leaders of the strike were arrested but later paroled (Yoes 1973:127-130).

Oil production has been the greatest influence on the general economic condition of St. Charles Parish in the twentieth century. This process of change is

exemplified by the transformation of the small town of Sellers into Norco, the company town of a major Shell Oil Company production facility. Oil fields were discovered and opened in the first half of the twentieth century, and the extraction and processing of oil were the major counterpoints to declining employment opportunities in the Parish. After 1950, population growth accelerated with a surge of industrialization, as major plants, such as Lion Oil Company (later Monsanto), Shell Chemical, Union Carbide, and Hooker Chemical opened (Yoes 1973:133, 137, 192-193). However, the agricultural character of St. Charles Parish's west bank has not been completely erased by industrial development and accompanying residential land use. A number of large and small farming operations continue, although dairying has largely supplanted the commercial production of sugar cane.

CHAPTER 6
OVERVIEW OF LAND USE AT 16SC61 AND ITS ENVIRONS
by Benjamin Maygarden

Chain of Title and Census Records for Section 34

In 1988, Shannon et al. acquired chain of title data for the study area. Additional research, the results of which are summarized herein, was conducted to provide more detail for interpreting 16SC61. The chain of title, which is summarized in Figure 8, appears more complex than that presented by Shannon et al. (1988). It should be noted here that many of the primary documents consulted refer variably to members of the "St. Amand" or "St. Amant" family. The spelling has been standardized as "St. Amand" for this chapter.

The site is located within Section 34 of T13S, R21E. That section measures approximately 14 arpents front on the Mississippi River. Land tenure during the colonial period cannot be stated with certainty, but by 1805 the upper six arpents of the section were held by Pierre Daspit St. Amand, and the lower eight arpents were held by Louis Augustin Meuillon.

The St. Amand family was settled in the vicinity of the study area since at least the end of the French colonial period. A St. Amand (without given name) is listed as a member of Boisclair's Company of the German Coast militia in 1766. St. Amand owned six arpents of land. He and his wife are shown as having on their habitation two boys, three girls, two male slaves, one female slave, four oxen, ten cows, twelve young bulls, and one musket. The 1770 census reveals that St. Amand had seven whites and ten slaves living at his habitation and that he had produced 220 quarts of rice and 250 quarts of corn that year (Voorhies 1973:173).

The name "Pierre St. Amand" first appears in the St. Charles Parish conveyance records in 1783 when he purchased a five arpent tract, situated on the west bank of the Mississippi River six leagues above New Orleans, from Francoise Pujol Dominiq St. Amand (COB 1783:579), whose relationship to Pierre is not mentioned. Pierre St. Amand purchased an additional five arpent tract on the west bank from Antoine Duverne in October 1796 (COB 1796:201). Two years later, Pierre bought the adjoining downriver four arpents from Louis Lambert (COB 1798:145). Although it is not possible to state definitely that any of these purchases included all or part of Section 34, it is likely that some of these

acquisitions were related to the section, since the evidence suggests that Pierre was in possession of this land by 1796. In November of that year, Pierre St. Amand sold the lower ten arpents of a tract of unspecified total frontage containing a plantation great house, cabins, and other improvements to George Rixner (COB 1796:188). It is likely that Pierre's retained holding included Section 34, since Rixner owned the adjacent, downriver Section 66 in 1805.

Louis Augustin Meullion, the uncle of Pierre Daspit St. Amand, was among the most prominent of the German Coast planters in the second half of the eighteenth century. He served as Captain of the First Company of the German Coast Militia and was apparently the greatest slaveholder in the parish. Meullion's principal residence was located on the east bank of the Mississippi River opposite Section 34 (Voorhies 1973:263, 404; Shannon et al. 1988:200). It seems likely that Meullion purchased the eight arpent front tract adjacent to and above George Rixner from Pierre Daspit St. Amand sometime between 1796 and 1805. Meullion definitely sold the lower eight arpents of Section 34 to Zenon Trudeau in September 1805 (COB 1805:19). Conveyance records indicate that Baptiste St. Amand purchased the six arpent five toise tract above Zenon Trudeau from Pierre St. Amand in February 1806 (COB 1806:21). In December 1807, Trudeau sold his eight arpents to Baptiste St. Amand (COB 1807:443), thus giving the latter ownership of all of Section 34. While "edifices" are mentioned in the earlier (1805) conveyance to Trudeau, this 1807 document is the first to specify buildings, namely a great house and "negro shacks" (*masures de negres*) (COB 1807:443).

The 1810 census for St. Charles Parish indicates that Baptiste St. Amand's household consisted of ten free white males, of whom six were under the age of sixteen, and eleven free white females, of whom six were also under the age of sixteen (Table 1). Forty-four slaves were also counted at his holding.

Shannon et al. (1988:200) indicated that both Ursin and Theodore Zeringue had acquired the fourteen arpent tract owned by Baptiste St. Amand through marriage of the latter's daughters. The following discussion provides a more plausible picture of this conveyance than that provided by Shannon et al. (1988). Baptiste St. Amand died in 1817, and the next available documentation on the property is an 1823 certificate of

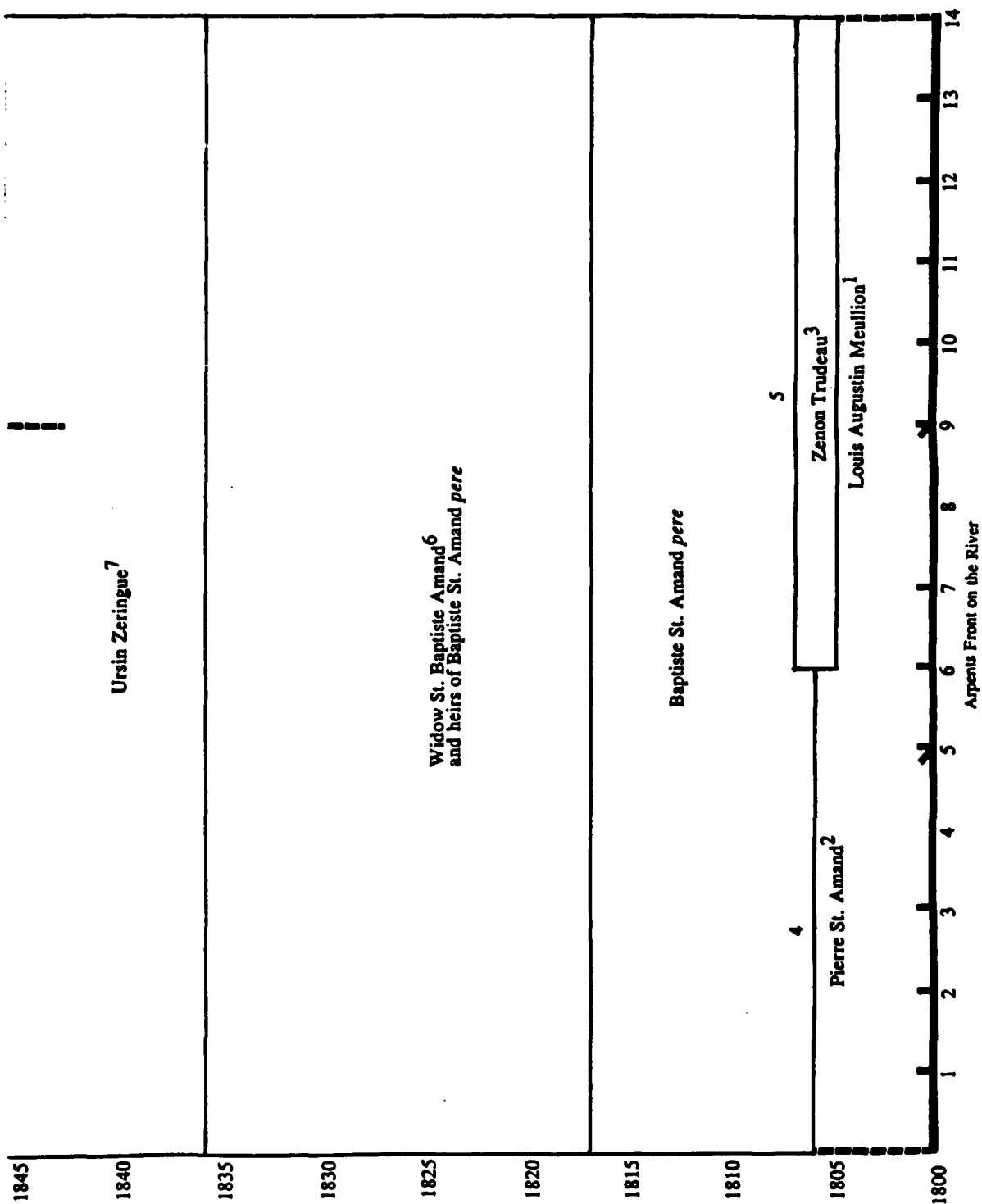
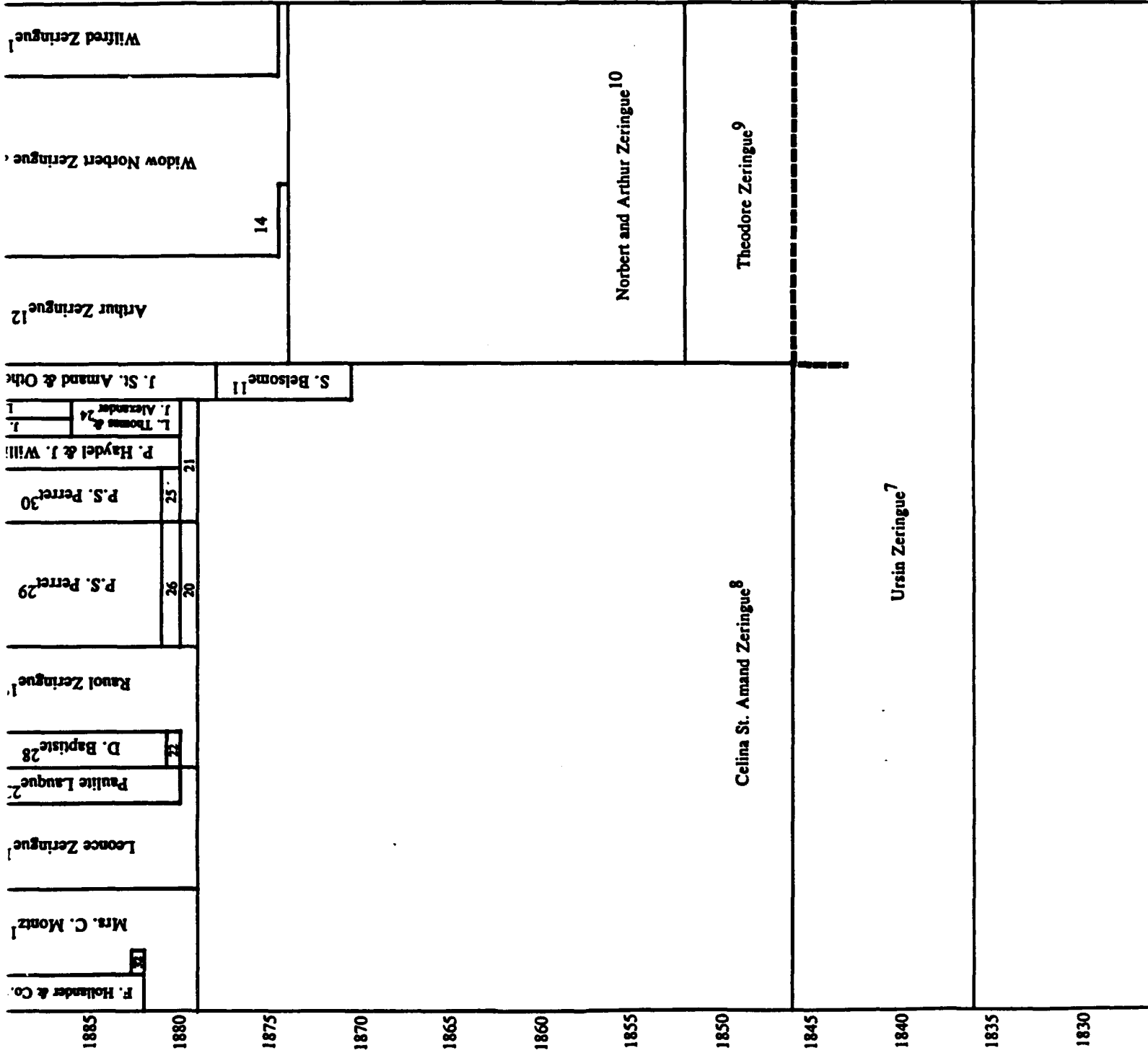


Figure 8. Chart showing ownership of the section 34 in T.13S., R.21E. between 1800 and 1900.

2



Norbert and Arthur Zeringue¹⁰

14

Arthur Zeringue¹²

Wilfred Zeringue¹⁵

S. Belson

J. St. Amand & Others 16

L. Thomas & J. Alexander 24	J. Alexander 33	L. Thomas 34	40
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J. Alexander 33

P. Haydel & J. Williams
27

25	P.S. Perret ³⁰	26
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20	P. S. Perret ²⁹
26	

Raul Zeringue 19

D. Baptiste 28

Pauline Laugel 23

Leonce Zeringue¹⁸

17	Mrs. C. Montz ¹⁷	Katz & Strauss ³⁶	L. Hirsch ³⁷
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L. Hirsch ³⁷	Katz & Strauss ³⁶
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L. Hirsch 37

F. Hollander & Co. 31	E. Peulier 35	39
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35	Peulier
39	

39



KEY TO FIGURE 8

1. Purchased by Louis Augustin Meullion from Pierre St. Amand between 1796 and 1805 (COB 1796:188; COB 1805:19).
2. In the possession of Pierre St. Amand by 1796 (COB 1796:188).
3. Purchased by Zenon Trudeau from Louis Augustin Meullion on September 18, 1805 (COB 1805:19).
4. Purchased by Baptiste St. Amand pere from Pierre St. Amand on February 11, 1806 (COB 1806:21).
5. Purchased by Baptiste St. Amand pere from Zenon Trudeau on December 21, 1807 (COB 1807:443).
6. Baptiste St. Amand died in 1817, and the property passed to his widow and heirs.
7. Purchased by Ursin Zeringue from the heirs of Baptiste St. Amand on January 25, 1836 (Felix Grima, 25 January 1836, NONA).
8. Celina St. Amand Zeringue received the land in the separation of property with her husband, Ursin Zeringue (P.P. Labarre, 28 April 1846, NONA; COB F:114).
9. Acquired by Theodore Zeringue some time prior to April 1846 (P.P. Labarre, 28 April 1846, NONA; COB F:114).
10. Purchased at Sheriff's Sale by Norbert and Arthur Zeringue on May 1, 1852 (COB A:112).
11. Purchased by Sosthene Belsome from the Widow Ursin Zeringue on June 22, 1871 (COB D:204).
12. Received by Arthur Zeringue in partition of property held by himself and his deceased brother, Norbert Zeringue, in a probate proceeding on June 24, 1874 (COB D:583).
13. Received by Mrs. Norbert Zeringue and others (heirs of Norbert Zeringue) in probate proceeding, June 24, 1874 (COB D:583).

Key to Figure 8, continued.

14. Purchased by Wilfred Zeringue from Arthur Zeringue on December 5, 1874 (COB D:628); received by Mrs. Norbert Zeringue and others in an exchange of land with Wilfred Zeringue on December 5, 1874 (COB D:630).

15. Received by Wilfred Zeringue in an exchange of land with the Widow Norbert Zeringue and others, December 5, 1874 (COB D:630).

16. Purchased by Joseph St. Amand and others from Sosthene Belsome on January 15, 1878 (COB E:485).

17. Received by Mrs. Paul F. Montz (née Cecile Zeringue) in partition of estate of the Widow Ursin Zeringue, November 20, 1879 (COB F:114).

18. Received by Leonce Zeringue in partition of estate of the Widow Ursin Zeringue, November 20, 1879 (COB F:114).

19. Received by Raoul Zeringue in partition of estate of the Widow Ursin Zeringue, November 20, 1879 (COB F:114).

20. Received by Leoncia Zeringue (Mrs. Felix Zeringue) in partition of estate of the Widow Ursin Zeringue, November 20, 1879 (COB F:114).

21. Received by Ursin Zeringue, son of Ursin Zeringue, in partition of estate of the Widow Ursin Zeringue, November 20, 1879 (COB F:114).

22. Purchased by Valsin Baptiste from Raoul Zeringue, January 23, 1880 (COB F:124).

23. Purchased by Paulite Lauque from Leonce Zeringue on January 26, 1880 (COB I:129).

24. Purchased by Louis Thomas and Joseph Alexandre from Ursin Zeringue on March 11, 1880 (COB F:134).

25. Purchased by John Artigue from Ursin Zeringue on May 26, 1880 (COB F:265).

26. Purchased by John Artigue from Leoncia Zeringue (Mrs. Felix Zeringue) on July 28, 1880 (COB F:217).

27. Purchased by Paul Haydel and Joseph Williams from Ursin Zeringue on November 30, 1880 (COB F:351).

Key to Figure 8, continued.

28. Purchased by Danias (?) Baptiste from Valsin Baptiste on December 1, 1880 (COB F:365).
29. Purchased by Pierre S. Perret from John Artigue on February 24, 1881 (COB F:420).
30. Purchased by Pierre S. Perret from John Artigue on April 7, 1881 (COB F:481).
31. Purchased by Frederick Hollander & Co. from Mrs. Paul F. Montz on February 5, 1882 (COB G:20).
32. Purchased by H.J. Chapsky from Mrs. Paul F. Montz on June 22, 1882; reverted to Mrs. Montz through default on December 16, 1882 (COB G:224).
33. Received by Joseph Alexandre in partition of land held by Alexandre and Louis Thomas, March 11, 1886 (COB H:67).
34. Received by Louis Thomas in partition of land held by Thomas and Joseph Alexandre, March 11, 1886 (COB H:67).
35. Purchased by Reverend Emile Peufier from Frederick Hollander & Co. on June 9, 1891 (COB I:529).
36. Purchased by Katz & Strauss (Abraham Katz and Abraham Strauss) from Mrs. Paul F. Montz on February 21, 1893 (COB J:50).
37. Purchased by Lazard Hirsch from Katz & Strauss on October 22, 1896 (COB K:162).
38. Purchased by Miss Celestine Griffin from Pierre S. Perret on April 19, 1898 (COB K:469).
39. Purchased at Sheriff's sale by Reverend Antoine D'Hommie on August 27, 1898 (COB K:523).
40. Purchased by Richard Gabriel from Louis Thomas on October 8, 1898 (COB K:544).

Table 1. 1810 Census Data for Baptiste St. Amand.

No. Free White Males	Age
4	0-6
2	6-16
1	16-26
2	26-45
1	over 45

No. Free White Females	Age
4	0-6
2	6-16
3	16-26
2	26-45
0	over 45

No. of Slaves: 44

mortgage between his wife and son and their creditors (COB 1823:44). This document reveals that the Widow Baptiste St. Amand, née Marianne Zeringue, held the 14 arpents corresponding with Section 34 in her own right, and that Baptiste St. Amand fils held in his own right the adjacent upriver 10 arpents. Both tracts were cultivated in sugar at that date, and mother and son had 121 slaves between them. Marianne's control of the 14 arpent front parcel in this document evidently refers to her right of usufruct, since the probate of Baptist St. Amand pere's estate had apparently placed his widow in possession of only one-half interest in the property. Although the probate of Baptiste pere's estate could not be found, an 1836 sale permits inheritance to be reconstructed. The other half of the estate was probably adjudicated to Baptiste pere's children: Baptiste fils, Pierre, Eliza (wife of Edmond Fazende), Felide (wife of Norbert Zeringue), and Hubert. It appears that his daughter, Celina, did not receive a share of Section 34. Since it is known that she was born in 1817, the year of her father's death (U.S. census 1850), it is possible that she was a posthumous child and thus did not share in her father's estate. Celina, along with her siblings and mother, received her due portions of Hubert's interest when he died, apparently without issue. Felide's portion was inherited by her two sons Norbert and Arthur Zeringue, after her death at some time prior to 1836 (F. Grima, 25 January 1836, NONA).

At the time of the 1820 census, then, the Widow Baptiste St. Amand was in possession of Section 34. The U.S. census listing for that year (Table 2) shows that her household consisted only of one free white female between 26 and 45 years of age, presumably the widow herself, two free white male children and two free white female children. The four children were sixteen years of age or younger. The census indicates that she owned 54 slaves, of whom 35 were males and 19 were females. Twenty-five of the male slaves and thirteen of the female slaves were fourteen years of age or older.

At the time of the 1830 census, it appears that Peter St. Amand was listed as the head of household at Section 34 (Table 3). This supposition is based on the order in which census records were listed and on ownership records for the adjacent plantations during the 1830s. "Peter St. Amand" is presumably the same individual as the "Pierre St. Amand" who, in 1823, is listed as one of the children and heirs of Baptiste St. Amand pere and Marianne Zeringue (Widow) St. Amand. The

Table 2. 1820 Census Data for Widow Baptiste St. Amand.

No. Free White Males	Age
1	0-10
1	10-16

No. Free White Females	Age
2	10-16
1	26-45

No. Male Slaves	Age
10	0-14
15	14-26
5	26-45
<u>5</u>	over 45
35	

No. Female Slaves	Age
6	0-14
5	14-26
2	26-45
<u>6</u>	over 45
19	

Table 3. 1830 Census Data for Peter St. Amand.

No. Free White Males	Age
3	0-5
<u>2</u>	30-40
5	
No. Free White Females	Age
1	0-5
2	10-15
2	20-30
<u>1</u>	50-60
6	
No. Male Slaves	Age
8	0-10
13	10-24
13	24-36
6	36-55
<u>3</u>	55-100
43	
No. Female Slaves	Age
4	0-10
6	10-24
8	24-36
2	36-55
<u>4</u>	55-100
24	

household consisted of five free white males and six free white females (Table 3). Five of these were adults. There were 43 male and 24 female slaves. Thirty-five of the male slaves and twenty of the female slaves were above the age of ten. The increase in the number of slaves present between 1820 and 1830 was a modest one.

In 1835, Celina St. Amand, daughter of the deceased Baptiste St. Amand pere and Marianne Zeringue St. Amand, married Ursin Zeringue. She brought to the marriage the remarkable dowry of \$30,665.64 (COB 1835:85). The size of her dowry may be additional evidence that she was a posthumous child; it may have served as her compensation for not receiving a share of her father's estate. On January 25, 1836, Ursin Zeringue purchased the 14 arpent front plantation from the other heirs of Baptiste St. Amand pere. The sale included the great house, the sugar house, the sugar mill, a storehouse, a hospital, Negro cabins and 19 slaves. The consideration for the sale was \$15,700.00 (F. Grima, 25 January 1836, NONA).

In 1837, Theodore Zeringue, who probably was Ursin's brother, married Marie St. Amand, the daughter of Baptiste St. Amand fils and Marie-Pamela Fortier (COB 1837:235). At some point during the next nine years, Theodore came into possession of the downriver 5 arpents front of Section 34, because in 1846, the Ursin Zeringues were only in possession of the upriver nine arpents. In that year, Celina St. Amand Zeringue was separated in property from her husband, Ursin Zeringue, by a decision of the District Court in New Orleans, and she apparently gained sole possession of the upriver 9 arpents front of the tract (P.P. Labarre, 28 April 1846, NONA; COB F:114). This portion of the estate includes the 16SC61 site. Also given to Celina in the property separation were 19 slaves of whom at least six were females and four were children. The document lists an additional six slaves of whom four were women and one was a child. Finally, Celina received forty head of cattle (Table 4). It was not unusual for Louisiana families to separate property between husband and wife as a means of protecting some portion of their holdings from creditors, and there are suggestions in the records that the Zeringues were having financial difficulties (below).

Table 5 summarizes the U.S. census record for Ursin Zeringue in 1840. His household was small, consisting only of two adult free white males and one adult free white female. One of these men was undoubtedly Ursin

**Table 4. Slaves Named in the Property Separation
Between Celina St. Amand and Her Husband, Ursin Zeringue
(P.P. Labarre, 29 January 1846, NONA).**

Slaves given to Celina St. Amand

Name	Age
Charlotte	50
Larvant	30
Jacques	65
Ursin	30
Manuel	18
Henry	18
Evariste	15
Raphael	60
Marie Louise	38
Eugenie	68
Hortense	28
and her children Noel	5
Mary	3
Suzette	36
and her children Celeste	8
Colas	6
Catherine	28
and her children Florentine	6
Edouard	15 mo.

Slaves "abandoned" to Marianne Zeringue, Celina's mother

Victoire	50
and her son Jacquot	17
Jules	30

Celina St. Amand's personal slaves

Josephine	not given
Louisa	not given
Catiche	not given

Table 5. 1840 Census Data for Ursin Zeringue and Honore Zeringue.

Ursin Zeringue

No. Free White Males	Age
1	20-30
1	30-40

No. Free White Females	Age
1	20-30

No. Male Slaves	Age
1	0-10
3	10-24
3	24-36
<u>5</u>	36-55
12	

No. Female Slaves	Age
5	0-10
1	10-24
<u>4</u>	24-36
10	

Table 5 (continued). 1840 Census Data for Ursin Zeringue and Honore Zeringue.

Honore Zeringue

No. Free White Males	Age
1	10-15
1	60-70
No. Free White Females	Age
1	60-70
No. Male Slaves	Age
4	0-10
1	10-24
2	24-36
6	36-55
<u>1</u>	55-100
14	
No. Female Slaves	Age
4	10-24
<u>4</u>	24-36
8	

himself, and the woman was his wife, Celina St. Amand Zeringue. Associated with Ursin's census listing were twelve male and ten female slaves. Eleven of the males and five of the females were over ten years of age. Ursin Zeringue's slave force, particularly in terms of adult males old enough to work in the fields, was quite small. The numbers are roughly comparable, however, to those in the 1846 document (above).

Table 5 also summarizes the census record for Honore Zeringue in 1840. The order in which households were listed in 1840 indicates that Honore was living on part of Section 34 just below Ursin Zeringue. The record suggests that Honore was between 60 and 70 years of age in 1840. He may have been the father of Ursin and Theodore Zeringue or some other elderly relative. In any event, his presence on the lower portion of Section 34 in 1840 is consistent with the fact that in 1846, Theodore Zeringue was in possession of those five arpents. Table 5 shows that in 1840, Honore Zeringue's household consisted only of a free white male and female, both between 60 and 70 years of age, and one free white male aged 10 to 15. However, Honore owned fourteen male and eight female slaves. All of the female slaves and ten of the male slaves were over ten years of age. These slaves, in combination with those owned by Ursin (above), would have provided a reasonable number of adult laborers for a fourteen-arpent front sugar plantation. The combined total for slaves of all ages and sexes is 44, a reduction of 23 since the 1830 census.

The slave holdings of Ursin Zeringue and his wife appear to be quite consistent, and modest, for the period 1835 to 1850. As was discussed above, Ursin purchased 19 slaves along with Section 34 in 1835. The 1840 census indicates him to be in possession of 22 slaves. In the 1846 division of property with his wife, she received 19 slaves and six additional were listed. The 1850 census (below) indicates that there were 25 slaves affiliated with Ursin's household.

Ursin and Theodore Zeringue cultivated their two separate parcels in partnership, undoubtedly because the latter lacked his own sugar house. In addition together they had what was probably an adequate labor force for fourteen arpents front on the river. Most of their 1850 sugar crop was lost as a result of a crevasse which destroyed at least 1,100 hogsheads of sugar of approximately one half-ton each in St. Charles Parish.

Table 6 presents the 1850 census data for these two households. Ursin Zeringue lives with his wife "Selima" (Celina) St. Amand. They appear to have had four children under the age of ten. The record does not list an occupation for Ursin, but it does indicate that his real estate was valued at \$15,000. This document indicates that Celina was only 33 years of age, which indicates that, as noted above, she probably was born in the same year her father died.

Theodore's immediate household was much larger than Ursin's (Table 6). Baptiste St. Amand fils and Baptiste's wife Pamela Fortier (Theodore's in-laws) are among the members. The individual who is apparently Theodore's wife is listed as "Zeolide St. Amand" although earlier documents refer to her as "Marie." Pamela Zeringue was undoubtedly their daughter and was named for her grandmother, Pamela Fortier.

The 1851-1852 sugar season was considered the worst in a generation because of the weather, although Ursin and Theodore Zeringue still managed to produce 93 hogsheads of sugar, up some 23 hogsheads from the year before. The next two seasons were fair to good for the Zeringues, but the 1854-1855 season ended in disaster when their entire crop of 83 hogsheads burned. This was a blow from which the sugar-growing efforts of the Zeringues never recovered, as they did not reappear as sugar producers in any subsequent editions of Champomier's or Bouchereau's sugar reports (Champomier 1856-1862; Bouchereau 1869-1880). The fact that sugar production ended so abruptly suggests that at least the apparatus in the sugar house or mill was seriously damaged in the fire.

Theodore Zeringue died sometime after 1850 (because he is listed in that year's census) but prior to January 30, 1852 (COB A:112). The inventory of his estate indicates that he owned the lower five arpents of Section 34, and that his property was bounded above by that of "Mr. _____ Zeringue (sic)" and below by David Lanaux (COB A:112). The household objects listed in the inventory were very modest (Table 7), and only four adult slaves, three slave children, and three mules, "one of them blind," are mentioned. The total estate was valued at \$9,061.00, of which \$6,000.00 was the value of the land.

On April 5, 1852, the downriver five arpents front of Section 34 were auctioned at a Sheriff's sale ordered as a result of the suit of Paul (?) Lanaux vs. Theodore

Table 6. 1850 Census Data for the Theodore Zeringue and Ursin Zeringue Households.

Theodore Zeringue Household

Name	Age	Sex
Theodore Zeringue*	35	M
Zeolide St. Amand	30	F
Pamela Zeringue	12	F
Baptiste St. Amand	50	M
Pamela Fortier	50	F
Guillaume Boucher	55	M (born in France)
Aubert Zeringue	20	M
Clorinde Boisblanc	20	F
Elmina Zeringue	4/12	F

*Occupation given as Planter; value of real estate \$10,000.00

Ursin Zeringue Household

Name	Age	Sex
Ursin Zeringue**	38	M
Selima St. Amand	33	F
Cecile St. Amand	10	F
Berthier St. Amand	8	M
Leonce St. Amand	1-8/12	M
Raoul St. Amand	4/12	M

**No occupation listed; value of real estate \$15,000.

Table 6 (continued). 1850 Census Data for the Theodore Zeringue and Ursin Zeringue Households.

Slaves (N=20) Associated with the
Theodore Zeringue Household

No.	Age	Sex	Color
1	50	M	B
1	45	M	B
1	40	M	B
1	12	M	B
1	10	M	B
1	10	M	B
1	8	M	B
1	5	M	B
1	3	M	B
1	40	F	B
1	30	F	B
1	20	F	B
1	20	F	B
1	17	F	B
1	8	F	B
1	1	F	B
1*	50	M	B
1*	60	M	B
1*	40	M	B
1**	4	M	B

*The record indicates that these three slaves belonged to Guillaume Boucher who was listed as a member of the Theodore Zeringue household.

** The record indicates that this slave belonged to Aubert Zeringue who was listed as a member of the Theodore Zeringue Household.

Table 6 (continued). 1850 Census Data for the Theodore Zeringue and Ursin Zeringue Households.

Slaves (N=25) Associated with the
Ursin Zeringue Household

No.	Age	Sex	Color
1	40	M	B
1	38	M	B
1	37	M	B
1	35	M	B
1	34	M	B
1	25	M	B
1	24	M	B
1	24	M	B
1	22	M	B
1	22	M	B
1	22	M	B
1	22	M	B
1	10	M	B
1	7	M	B
1	5	M	B
1	1-6/10	M	B
1	35	F	B
1	30	F	B
1	30	F	B
1	25	F	B
1	23	F	B
1	20	F	B
1	20	F	B
1	18	F	B
1	15	F	B

Table 7. Household Objects, Slaves, and Agricultural Tools Listed in the Probate Inventory of Theodore Zeringue (COB A:112).

Household Objects

2 sheet [of linen] and 15 of cotton	\$16.00
7 _____	4.00
2 [gentleman's] linen _____	10.00
1 old armoire	8.00
1 bureau	5.00
1 medicine chest [with] medicines	2.00
1 _____	4.00
10 covers of silver, 2 _____ baking of silver	30.00
	<u>\$79.00</u>

Slaves

Sehro, American Negro aged 45 years, laborer,
carter, field Negro, estimated at 400 piastres

Jean, Creole Negro, aged 28 years, of the field,
_____, estimated at 500 piastres

Marie, Creole Griffe aged 30 years aged 30 years,
house servant, laundry woman and _____

Joseph of 8 years, Paul of 5 years and Victorine of
2 years, estimated at 1250 piastres

Agricultural Tools

5 old carts	\$ 10.00
1 cart _____	25.00

and Ursin Zeringue. The process verbal of the sale was illegible, and documentation of the suit was not found, but it may be assumed that Lanaux held some lien on the Zeringue's property. The five arpent front tract was adjudicated to Norbert and Arthur Zeringue, who, as noted above, were the grandsons of Baptiste St. Amand pere, and thus, Theodore's wife's cousins. The property was improved at the time of the sale (COB A:112).

The 1860 census indicates that the Ursin Zeringue household continued to live on Section 34. It appears that Ursin lived with his wife Celina and six children aged 3 to 17 years (Table 8). A carpenter is also listed as part of the household. Ursin's occupation is listed as "planter," and his real estate is valued at \$30,000. He owned 20 slaves, ten males and ten females. Eight of the males and five of the females were aged 14 and above.

Also residing on Section 34 were Norbert Zeringue and his household (Table 8). Norbert was listed as the head of household, and Arthur Zeringue was an adult member. These were the two individuals to whom the property of Theodore Zeringue was adjudicated in 1852 (above). The census record suggests that Norbert and his wife had five children, while Arthur and his wife were as yet childless. Norbert's occupation was given as planter, and his real estate was valued at \$10,000.

Norbert owned only three adult male and two adult female slaves. Three slave children aged 2 to 8 years were also listed. Ursin and Norbert together, then, held only eleven adult male slaves and seven adult female slaves. The numbers are quite low and appear to reflect a failure to recover from the 1854-1855 economic disaster (above).

Following the Civil War, rice became the primary cash crop grown in the area around 16SC61. Ursin Zeringue as well as Norbert and Arthur Zeringue and many of their neighbors turned to rice agriculture (Bouchereau 1869-1871). The fact that the sugar and rice reports list "U. Zeringue and others" and "A. Zeringue and others" (Bouchereau 1869-1871) indicates that at least a portion of the lands were leased for rice cultivation in addition to the lands which the owners farmed. Because rice agriculture required less capital outlay than sugar cultivation, it was not unusual for planters to adopt the latter after the war when many plantations were in ruins and there was little

Table 8. 1860 Census Data for the Theodore Zeringue and Ursin Zeringue Households.

Ursin Zeringue Household

	<u>Age</u>	<u>Sex</u>	<u>Occupation</u>
Ursin Zeringue*	40	M	Planter
Selina Zeringue	32	F	
Cecile Zeringue	17	F	
Berthier Zeringue	15	M	
Leonce Zeringue	9	M	
Raoul Zeringue	8	M	
Leontia Zeringue	6	F	
Ursin Zeringue	3	M	
Adolphe Dorvin	50	M	Carpenter

*Real estate valued at \$30,000.00

Norbert Zeringue Household

	<u>Age</u>	<u>Sex</u>	<u>Occupation</u>
Norbert Zeringue**	33	M	Planter
Euphrasie Zeringue	27	F	
Armlicar Zeringue	11	M	
Wilfrey Zeringue	8	M	
Numa Zeringue	6	M	
Marcelin Zeringue	4	M	
Artemise Zeringue	2	F	
Cyril Zeringue	2/12	M	
Arthur Zeringue	27	M	
Francine Zeringue	20	F	

**Real estate valued at \$10,000.00

Table 8 (continued). 1860 Census Data for the Theodore Zeringue and Ursin Zeringue Households.

Slaves Associated with Ursin Zeringue			
No.	Age	Sex	Color
1	50	M	B
1	40	M	B
1	28	M	B
1	25	M	B
1	20	M	M
1	30	M	B
1	17	M	B
1	14	M	B
2	10	M	B
1	6/12	M	B
1	30	F	B
1	18	F	B
1	30	F	B
2	20	F	B
1	20	F	M
1	9	F	B
1	8	F	B
1	8	F	B

Slaves Associated with Norbert Zeringue			
No.	Age	Sex	Color
1	30	M	B
1	40	M	B
1	60	M	B
1	30	F	B
1	22	F	B
1	8	F	B
1	4	M	B
1	2	M	B

money for repairing levees and sugar-processing machinery.

Interestingly, Arthur Zeringue is listed as having a horse-powered sugar mill and a wood sugar house in the 1870 edition of the sugar and rice reports. This may have been an error in the report, or the machinery within the mill may have been inoperable, since there is no indication that he grew any sugar. Instead, rice cultivation continued. Various members of the Zeringue family continued to grow rice in commercial quantities after subdivision of the tract until at least 1890, when rice production figures were dropped from the Bouchereau reports (Bouchereau 1870-1890).

By 1870, the census record no longer lists Ursin Zeringue at Section 34 (Table 9). His wife Celina was shown as the head of household, which indicates that Ursin had died some time after 1860. Celina appears to have been living with five of her children. Three were employed, while two were "at school." Celina was "keeping house." The eldest male in the household is listed as a plantation agent. Two younger males are listed as laborers. The employment category "laborer" at this point in time generally designated a low status, low income position.

In 1870, the head of the other household on Section 34 is Arthur Zeringue (Table 9). His brother Norbert had died, but the Widow Norbert Zeringue continued to reside here. Her real estate and personal property were valued at \$1900 and \$100 respectively. The head of household was Arthur Zeringue, whose occupation was listed as "planter." His real estate and personal property were valued at \$1900 and \$100, the same as Widow Norbert's. Arthur's wife and four children, eight years of age and younger, resided with him.

An acceleration of the rate of subdivision of the St. Amand-Zeringue tract occurred in the 1870s. An excerpt from the 1875 Mississippi River Commission Map (Figure 9) shows the location of the site during this period. In 1871, the Widow Ursin Zeringue sold a one-half arpent front tract at the lower end of her property to Sosthene Belsome (COB D:204). In 1878 Belsome sold the property to Joseph St. Amand (or Amand) and six others (COB E:485), who held it throughout the remainder of the nineteenth century.

Table 9. 1870 Census Data for the Arthur Zeringue and Celine Zeringue Households.

Arthur Zeringue Household

	<u>Age</u>	<u>Sex</u>	<u>Race</u>	<u>Occupation</u>
Arthur Zeringue*	43	M	W	Planter
Francine Zeringue	30	F	W	
Felide Zeringue	8	F	W	
Celia Zeringue	6	F	W	
Arthur Zeringue	4	M	W	
Marie Zeringue	8/12	F	W	
Widow Norbert Zeringue**	30	F	W	At home

*Real estate valued at \$1900; personal property valued at \$100.

**Real estate valued at \$1900; personal property valued at \$100.

Celine Zeringue Household

	<u>Age</u>	<u>Sex</u>	<u>Race</u>	<u>Occupation</u>
Celine Zeringue	43	F	W	Keeps house
Bruttin Zeringue	25	M	W	Agt. Plantation
Leonce Zeringue	22	M	W	Laborer
Raoul Zeringue	19	M	W	Laborer
Ursin Zeringue	12	M	W	At school
Lancelot Zeringue	16	M	W	At school

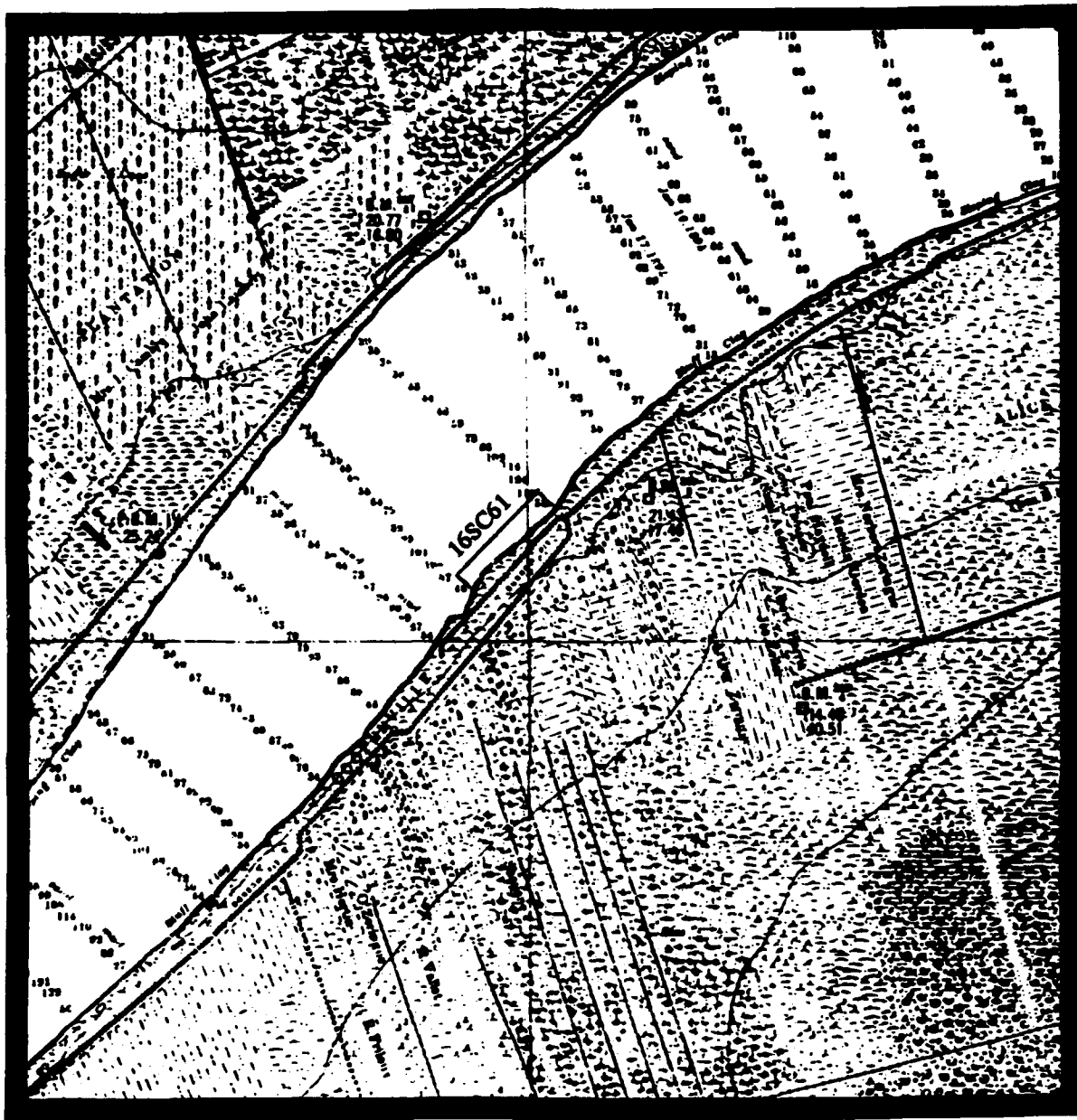


Figure 9. Excerpt from the 1875 Mississippi River Commission Map, Chart No. 75, showing the location of 16SC61 (topography taken in 1894). Scale 1:20,000.

In June 1874, a probate proceeding was held concerning the estate of Norbert Zeringue to determine the relative interests of his widow, Euphrosine Folse; his children; and Arthur Zeringue. At this date the five arpent front tract which Norbert and Arthur had jointly held was valued at \$950.00 per arpent front (\$4750.00 total) and the buildings were appraised at \$950.00. The property was divided into two equal portions and assigned by drawing from a hat. The upper two and one half arpents, which contained all of the buildings, fell to Arthur, and the lower half of the tract went to the Widow Norbert Zeringue and her children (COB D:583) (Figure 8).

Six months later Arthur Zeringue sold the lowest one arpent front of his tract to Wilfred Zeringue for \$1300.00, or \$350.00 more than a single arpent had been valued in the original division. This may suggest that structural improvements were located on this tract. Wilfred exchanged the tract the same day with the Widow Norbert Zeringue, her minor children, and adult son Amilcar for the lowest one arpent front of their property (COB D:628, 630). The resulting tripartite division of the lower five arpents of Section 34 remained until the property of Widow Norbert Zeringue was finally partitioned in 1900 (Figure 8).

The uppermost eight arpents front of Section 34 that were held by Widow Ursin Zeringue at her death in May 1879 were partitioned into five equal lots of 271' front and assigned to her heirs, again by the drawing of ballots from a hat (COB F:114). The uppermost lot, designated Lot #1, was assigned to Cecile Zeringue, the wife of Paul F. Montz. This lot included the main house, which was a one-story frame structure on brick postings (piers) with a wooden frame kitchen attached and which was valued at \$500.00. A laborer's cabin valued at \$30.00 and a shed appraised at \$10.00 were also located on this uppermost tract. Lot #2 of the partition of the Widow Ursin Zeringue was assigned to Leonce Zeringue. This lot contained four laborer's cabins at the time of partition. Three of these were valued at \$30.00 each and one at \$20.00. Lot #3 was assigned to Raoul Zeringue and contained two laborer's cabins valued at thirty dollars each. The remaining two tracts, Lots #4 and #5, went to Leoncia Zeringue, the widow of the late Felix Zeringue, and Ursin Zeringue, respectively (Figure 8). These last two properties were unimproved (COB F:144). Celina St. Amand Zeringue, who had been given a dowry of \$30,665.64 forty-four years

earlier, had an estate worth \$5871.50 including movables (Table 10).

In 1882, the upper one-half arpent front of Lot #1 was sold by Mrs. Celina Zeringue Montz to Frederick Hollander & Co. (COB G:20), who in turn sold this one-half arpent to the Reverend Emile Peufier in 1891 (COB I:529). Peufier's lot was auctioned at a Sheriff's Sale in 1898 and purchased by the Reverend Antoine D'Hommie (COB K:523). Mrs. Montz sold one-quarter arpent front to H.J. Chapsky in June 1882, but by December of that year Chapsky had defaulted. In 1893, Mrs. Montz sold her remaining arpentage to the firm of Katz & Strauss (COB J:50), who sold it in 1896 to Lazard Hirsch (COB K:162) (Figure 8).

Leonce Zeringue sold his lower one-half arpent front of Lot #2 to Paulite Lauque in January 1880 (COB I:129). Paulite Lauque and Leonce Zeringue remained in possession of their respective properties for the rest of the nineteenth century. In January 1880, Raoul Zeringue sold his upper one-half arpent of Lot #3 to Valsin Baptiste (COB F:124), who sold his one-half arpent to Danias (?) Baptiste in December 1880 (COB F:365). Zeringue and Baptiste retained tenure of their portions of Lot #3 until after 1900. Leoncia Zeringue, sold Lot #4 in its entirety to John Artigue in July 1880 (COB F:217). Artigue then sold the 271' lot to Pierre S. Perret in February 1881 (COB F:420) (Figure 8).

In January 1880, the lower one-half arpent of Ursin Zeringue's Lot #5 was purchased by Joseph Alexandre and Louis Thomas (COB F:134). In March 1886, Thomas and Alexander partitioned their property into two one-quarter arpent front lots, with Alexandre receiving the upper lot and Thomas the lower (COB H:67). Thomas subdivided his one-quarter arpent, in non-linear fashion, into a number of lots after 1898 (COB K:544, 546, 547, 588, et seq.). The portion of his lot facing onto the public road was purchased by Richard Gabriel in 1898 (COB K:544), although the levee and batture apparently were not conveyed. Ursin Zeringue sold one-half arpent adjacent to Thomas and Alexandre in November 1880 to Paul Haydel and Joseph Williams (COB F:351), who were still in possession in 1900. John Artigue, later to buy the adjacent Lot #4, purchased the upper 125' of frontage of Lot #5 from Ursin Zeringue in May 1880 (COB F:265). P.S. Perret bought this 125' from Artigue in April 1881, giving him the largest property frontage in Section 34 during a period when subdivision and partition seemed more usual than consolidation (COB

Table 10. Moveable Property Listed in the Probate Inventory of Celina St. Amand, the Widow Ursin Zeringue (COB F:114).

One old plantation bell	\$10.00
One [illeg]	2.00
Three bedsteads with bedding and mattresses	45.00
Two card tables	3.00
Six old hair bottom chairs	3.00
One set marble ornament, two marble vases and marble clock with glass globes on each (sic)	15.00
One mahogany armoire	8.00
One set fireplace utensils	2.50
An old upright style bureau with drawers and looking glass	2.50
One side board, marble top with etagere	5.00
One dining room extension table with leaves	5.00
One meat safe	3.00
One yoke of oxen	35.00
One milch cow and calf	<u>20.00</u>
	161.50
Real Estate	5000.00
Buildings	<u>710.00</u>
Total Estate	\$5871.00

F:481). However, Perret sold the 125' frontage in April 1898 to Miss Celestine Griffin (COB K:469) (Figure 8).

By 1900, the 14 arpent front on the Mississippi River of Section 34 was divided into 16 lots, and the rate of subdivision would accelerate during the twentieth century. Figures 10, 11, and 12 are maps that show all or portions of the site in 1901, 1921, and 1930. Both linear and nonlinear subdivision were occurring in this period. The latter included subdivision of tracts into numerous small lots behind the public road. Chain of title consequently becomes extremely complex after 1900. For example, the division of interest in the estate of Mrs. Euphrosine Folse Zeringue among 22 assignees in 1920 (COB U:265), or the succession of Wilfred and Marie Zeringue in 1924, in which their one arpent front was divided among 15 assigns (COB X:65), are not atypical. Raoul Zeringue subdivided his property by sale and donation beginning in 1927 (COB Z:385, 401, 403; COB AA:546; COB FF:154, 266, 268). At the time of his succession his remaining property was divided among six legatees. Other owners in the section subdivided, sold, and partitioned at varying rates. At the time of the preparation of the Tobin maps of St. Charles Parish in the mid-twentieth century, twenty-five lots are shown having boundaries on the public road in Section 34, with the Hirsch, Baptiste, Perret, Haydel, and Zeringue families still represented in descent from their nineteenth-century holdings. In general, the Mississippi River frontage of Section 34 is among the most heavily subdivided sections in this vicinity of the west bank.

Summary of Salient Points for Interpretation of 16SC61

Figure 1 shows the location of 16SC61 within Section 34. The preceding overview of land use within the section presents a number of facts which are important for correctly interpreting the archaeological record. These are:

- (1) It is likely that Section 34 was occupied by Europeans sometime in the eighteenth century. However, the initial occupation probably postdated initial settlement of the "German Coast" proper, located a short distance upriver;

- (2) An 1805 document refers to "edifices" on the lower eight arpents of Section 34;

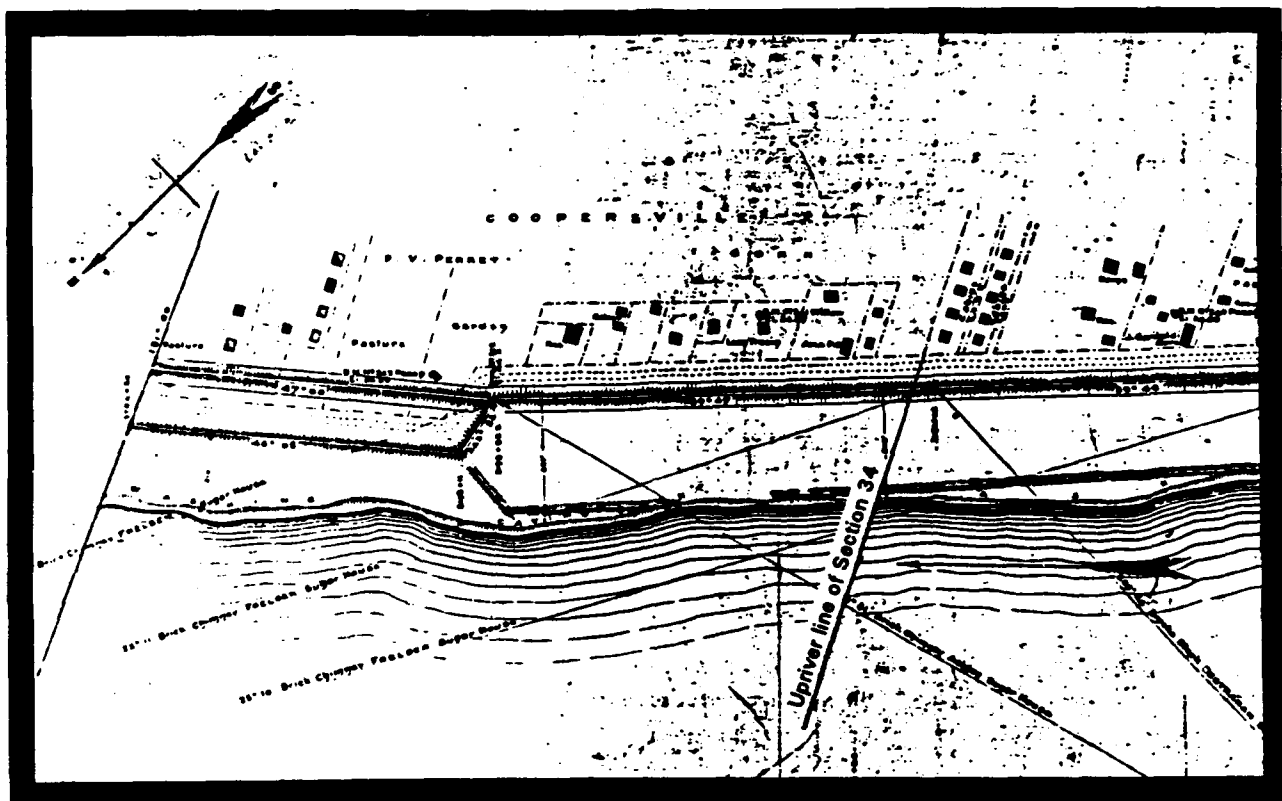


Figure 10. Excerpt from a ca. 1901 Caving Banks map, Chart No. 55, showing the upriver portion of Section 34 (John Klorer Collection, Special Collections, Howard Tilton Library, Tulane University).

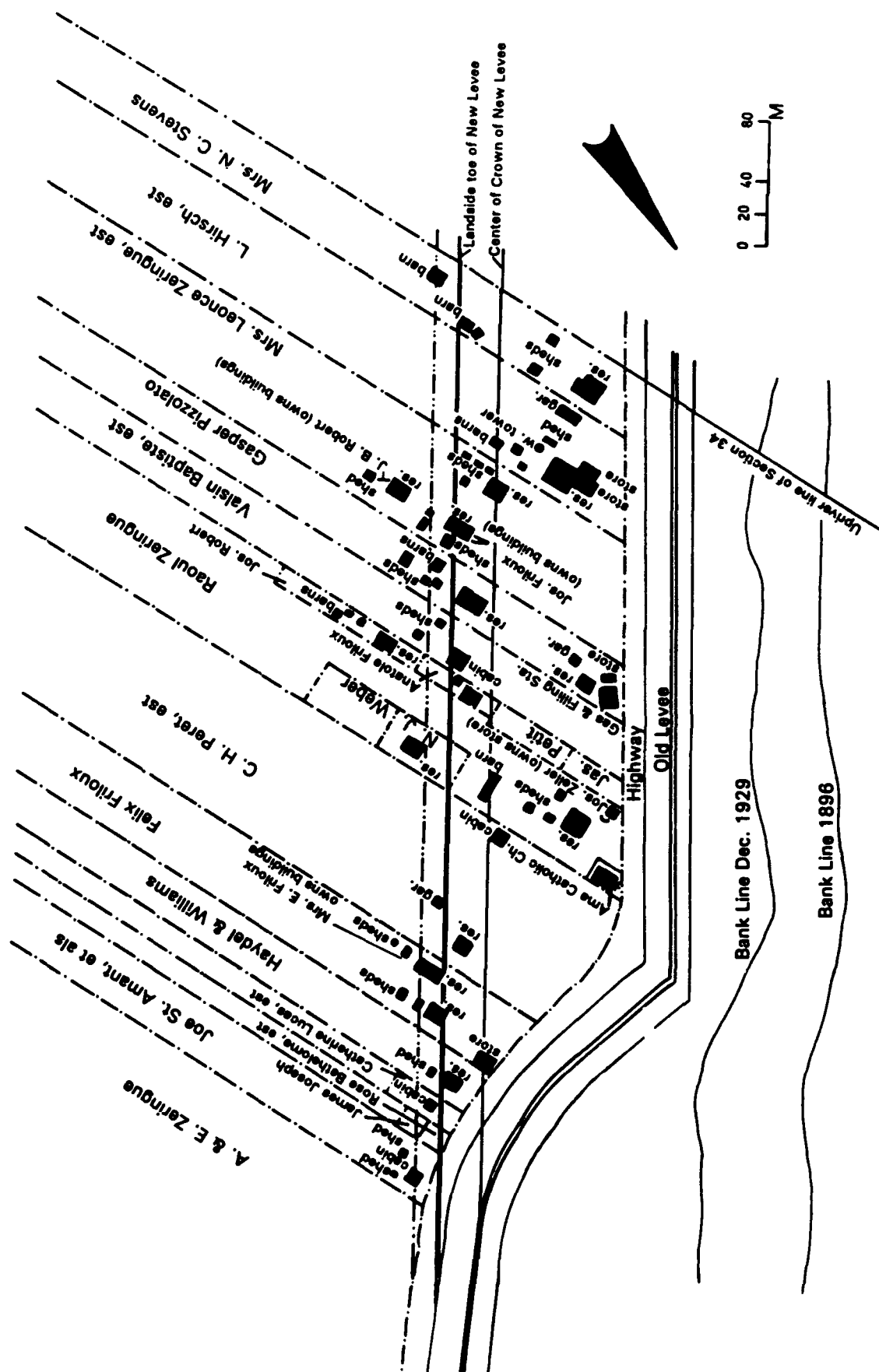


Figure 12. Excerpt from the 1930 levee setback map of the Ama New Levee showing the upriver portion of Section 34 (Office of Public Works, Baton Rouge).

(3) An 1807 document refers to "negro shacks" (*masures de negres*) on the lower eight arpents of Section 34;

(4) By 1810, the U.S. census enumerates 21 free whites and 44 slaves at Section 34;

(5) The 1820 census enumerates 5 free whites and 54 slaves, but by 1823 the Widow Baptiste St. Amand and her son owned 121 slaves between them. The fact that the slaves were jointly owned suggests that the slave population may have been housed in one large complex;

(6) The 1830 census indicates there were eleven free whites and 67 slaves;

(7) At some time between 1837 and 1846, Section 34 was divided into an upper nine and a lower five arpents, each with separate owners;

(8) In 1837, the individual who would ultimately possess the upper 9 arpents purchased 19 slaves along with the entire section;

(9) The 1840 census indicates that two free white households were present on Section 34. The household apparently associated with the upper nine arpents consists of three free whites. Twenty-two slaves are listed as affiliated with that household. The other household also has three free whites with twenty-two affiliated slaves. The total number of slaves on Section 34, then, is 44. This and the subsequent censuses through 1870 suggest that there may be two separate residences for the two white households but there are no documents to prove this;

(10) The owners of the upper and lower portions of Section 34 were relatives who produced sugar as partners from the 1840s through 1855. There probably was only a single sugar house on the section;

(11) The sugar crop of 1850 was lost to a crevasse at a plantation located downriver;

(12) The 1850 census shows two free white households numbering nine and six individuals respectively. Twenty slaves were associated with the former and 25 with the latter so that the total number of slaves on Section 34 is almost the same as in 1840;

(13) In 1852, the lower five arpents were adjudicated to new owners. These were improved. This would seem to indicate that the two different households listed from 1840 to 1870 either resided in a single dwelling, or more likely, there were two separate residences on the upper nine arpents and the lower five arpents;

(14) The 1854-55 sugar crop of 33 hogsheads burned. It is likely that the sugar processing apparatus was destroyed at this time. The sugar reports never again indicate sugar production on Section 34;

(15) The 1860 census shows the two households consisted of nine and ten free whites respectively. Only twenty slaves were affiliated with the former and eight with the latter;

(16) After 1865, rice was produced on Section 34;

(17) Even though it appears that no sugar was being produced, the 1870 report indicates that a horse-powered sugar mill and a wood sugar house were present on the lower five arpents of Section 34;

(18) There are again two white households on Section 34 in 1870. Seven individuals are listed with one of these and six with the other;

(19) Section 34 began to be further subdivided in 1871. Parcels were of decreasing size as time went on;

(20) In 1874, the uppermost 2-1/2 arpents of the former lower five arpent tract contained all of the buildings located on that tract. The area represented would be, counting from the upper boundary of Section 34, Arpents No. 10 to 12-1/2. If one assumes an arpent is 192 feet, then this would be the area between 1920 and 2400 feet from the upriver boundary. It is possible that these buildings were located on the lower arpent of the upper 2-1/2 arpent portion. This would represent the area within the lower portion of Arpent 11 and the upper portion of Arpent 12, counting from upriver to downriver. Making the above measurement assumptions, this would be the area between 2208 and 2400 feet;

(21) In 1879, the upper eight arpents were divided into five equal-sized lots of 271 feet front. The uppermost lot, presumably the 271 feet just below the upper boundary of Section 34, contained the main house with attached kitchen and also contained a laborer's

cabin. Lot No. 2, the area approximately 271 to 542 feet from the upper boundary of Section 34, held four additional laborer's cabins. Lot No. 3, the area from approximately 542 to 813 feet below the upper section boundary, held two additional laborer's cabins. If the assumptions above are correct, there were no improvements on the land 813 to 2208 feet below the upper section boundary by 1879.

CHAPTER 7 PREVIOUS INVESTIGATIONS

Site 16SC61 was first described as "...a linear deposit of prehistoric and historic artifacts located on the bankline of the Mississippi River..." (Shannon et al. 1988:342). Site extent was reported as approximately 400 m EW and 50 m NS, and vertical extent "below the surface of the ground" did not exceed 1.30 m. Ceramic artifacts were classified as creamware, pearlware, a variety of whitewares, faience, and redwares. Personal items, clothing items, architectural material, small tools, and hardware were also recovered. Shannon et al. (1988:343) stated that

The majority of these artifacts are typical of a domestic household setting. However, articles associated with the presence of women and children are noticeably absent (Shannon et al. 1988:343).

Shannon et al. (1988:343-344) attempted to provide a date for the site. Despite the presence of faience, creamware, and redwares, all of which are earlier types, the authors of the site report indicated that "The mean ceramic date for the ceramic types range from 1820 to 1875" (Shannon et al. 1988:343). They further noted that fifty percent of the glass from the surface was twentieth century machine manufactured bottle glass (post 1920), and that the remainder of the diagnostic glass had a mean date of 1874.

Three aboriginal sherds were recovered. They were classified as Mississippi Plain var. *Pocahontas*, Fatherland Incised var. *Bayou Goula*, and Marksville Incised var. *unspecified*. Their presence was interpreted as evidence for a prehistoric component at the site (Shannon et al. 1988:344).

Excavations consisted of twelve shovel tests to 30 cm, twelve auger tests, and "probe tests." The auger tests were excavated to depths of 80 to 100 cm. No artifacts were recovered in the tests. Stratigraphy recorded in the tests was said to suggest "...the deposition of heavy alluvial sedimentation across the site area" (Shannon et al. 1988:344). No cultural features were recorded in the six "probe tests."

A 2 x 2 m profile was cleaned along the bankline. "Cultural debris" was noted from the uppermost stratum to a depth of 1 m. The authors report that brick

fragments were present within Stratum G (approximately 80 to 100 cm) which was described as a 10YR 4/3 silt. The drawing of this profile shows that "pebbles, oyster, glass, etc." were observed within Stratum F. Stratum H was a sterile clay.

A surface scatter of reddish-orange brick at the site extended along a 200 m portion of the bankline. These were interpreted as evidence of "...the extensive degree of cutbank erosion" (Shannon et al. 1988:348). Feature 1 was a brick architectural feature at the approximate center of the brick scatter. Elements of the feature were interpreted as the southern wall foundation of a building, a collapsed chimney, and a "brick patio." The foundation wall was made of large, soft, red bricks with lime mortar. It was 4 m long and 50 cm wide. Its height was approximately 50 cm above the ground surface. Just north of the wall foundation was an "ashy deposit with numerous charcoal fragments and associated fire bricks" (Shannon et al. 1988:350) which was interpreted as a possible collapsed chimney. Sherds of "blue feather edge pearlware" (presumably a misnomer for blue shell-edged pearlware) "...were collected just below the surface of this area in an ashy deposit." The other element of this complex of features was "an intact solid brick floor patio area." It was made of "shiners... characterized by a greenish-gray self-glazed surface" (Shannon et al. 1988:350).

A 1 x 2 m unit (Excavation Unit 1) was excavated in both 10 cm arbitrary and natural levels at the southeastern corner of Feature 1. Its location was intended to expose "...the surface of the buried occupation surface" visible along "...the face of the bluff edge" (Shannon et al. 1988:350). Within the unit, the buried occupation surface was described as an olive brown clay with heavy charcoal mottling. Also, there was an extensive mass of brick rubble near the center of the unit. "Evidence of a construction trench" was designated Feature 3 within which the density of charcoal was lower and the size of the brick rubble was smaller (Shannon et al. 1988:352).

Stratum D was above the "occupation surface" in Excavation Unit 1. It was a black silt loam which yielded "...brick and other artifacts such as yellowware, whiteware, ironstone, pearlware, buff bodied earthenware, square cut nails, and various unidentifiable iron fragments" (Shannon et al. 1988:352). "The brick deposit" discussed above was designated Stratum E. It consisted of gray ash, light

brown ash, olive brown silt with charcoal, and black silt loam (Shannon et al. 1988:352).

A 1 x 1 m excavation unit (Excavation Unit 2) was placed "...on top of the fallen chimney deposit of ash, charcoal, and brick rubble." The various strata encountered contained ash, charcoal, and brick fragments. One of the strata yielded "historic sherds" but the types recovered were not specified in the report. Based on these strata, the report indicated that "Excavation Unit 2 confirmed the presence of a fireplace feature, but failed to shed additional light upon the structure's age" (Shannon et al. 1988:356). However, the description of the unit and the profile included in the report do not provide any substantiating data for the fireplace interpretation. Also unfortunate is the fact that the "historic sherds" were not used to at least tentatively date the purported "fireplace feature."

Excavation Unit 3 (1 x 1 m) was placed 30 m from the above-discussed feature "...in order to determine if a difference in artifact diversity occurs downriver from the structure" (Shannon et al. 1988:357). "Artifact inclusions," charcoal, and bricks were encountered (Shannon et al. 1988:357). However, the issue of artifact diversity was not discussed further in the report.

Feature 2 was "...defined as a surficial concentration of historic artifactual remains present along the cutbank and terrace of the Mississippi River" (Shannon et al. 1988:357). A 1 x 2 m unit (Excavation Unit 4) "confirmed the presence of Feature 2 within the cutbank bluff edge, but failed to shed additional light on its origin or age" (Shannon et al. 1988:357). Stratum E within the unit was "...a dark gray silty clay deposit bearing cultural material..." as well as charcoal. Unfortunately, no information was provided concerning the nature of the cultural material. The only interpretation of the unit states that "These cultural materials presumably originated at this level, and later were covered by an overbank deposit" (Shannon et al. 1988:357).

Shannon et al. (1988:360) conclude their description of 16SC61 with the following evaluation:

Further research at 16SC61 should produce additional data relevant to previously identified themes significant to the history

of the project area, due to the contextual integrity of the subsurface historic assemblage recorded during the 1987 examination of the site. Thus, 16SC61 is significant pursuant to 36 CFR 60.4 (Shannon et al. 1988:360).

In a tabular summary of artifact analyses for all of the sites recorded within the various areas surveyed, some dates were provided for 16SC61 as a whole. The Mean Ceramic Date given was 1845. The *terminus post quem* based on glass artifacts was 1920. However, an alternate *terminus post quem* for glass was derived "by dropping the lowest and highest post dates." The resulting date was 1845. The site was considered to be multi-component with a "hypothetical site chronology" of 1820-1870 and 1920-present (Shannon et al. 1988:218).

Table 25 of Shannon et al. (1988:378-379) provided a "significance assessment of sites in the project corridor." 16SC61 was said to include a Mississippian prehistoric as well as an historic component consisting of small landholdings. Each site was classified as "Yes" or "No" for NRHP criteria A, B, and D. Under Criteria A (representing a theme) and D (research potential), the site was coded as "Yes." The "significance levels" were considered to be local and regional but not national. Finally, the table indicated that the site exhibited integrity and that it was significant (Shannon et al. 1988:379).

Shannon et al. (1988:384-385) also provide a more specific evaluation of the site which includes a delineation of what they considered to be its research potential:

Given the abundance of cultural remains at the site, and their contextual integrity, it is apparent that this site has the potential for providing a well preserved example of a mid-to late nineteenth century small antebellum farmstead residence. A large milling stone fragment and evidence of barn and farming hardware just upriver from the brick residence attest to the diversity of activities to be explored at 16SC61. Future research at the site should help elucidate differences between small farmsteads along the river and the upland south farmsteads, between small farmsteads and large plantations, and, between small farmsteads and the rural villages of

southeastern Louisiana? As Figure 53 illustrates, the site 16SC61 was occupied by the Zeringue family at the date indicated by both the mean ceramic date and the hypothetical site chronology shown in Table 18. The Zeringue brothers acquired the property through marriage to the daughters of Baptiste Daspite St. Amand; thus, the property remained in a direct matriline of descent (and inheritance) from the 18th century. This might affect positively the ability to study the use of heirloom goods, relative goods replacement frequencies, breakage rates, and a range of behavioral aspects both related to nineteenth century life and to broader issues in archeological method and theory. The fact that the Zeringue (Zeringer) family settled the region very early adds more time depth to behavioral or ethic studies on the German Coast.

Given the in situ brick foundation and the extensive midden on which it rests, site 16SC61 obviously manifests the requisite integrity for National Register eligibility. As Table 25 shows, site 16SC61 is significant under the requirements of criterion A. The historic foundation clearly is associated with local and regional events which have proven to be of historical consequence to the development of antebellum and postbellum agriculture in the region. Site 16SC61 has sufficient context, depth, and antiquity to contribute to the scientific or humanistic understanding of the past as defined by criterion D of the National Register (36 CFR 60.4). It is significant at the local and state levels (Shannon et al. 1988:384-385, *sic.* throughout).

Shannon et al. 1988:385-386) made a series of recommendations concerning 16SC61. They stated that a "Phase 3 data recovery program" should be undertaken "unless avoidance of adverse effect through project redesign can be implemented successfully..." (Shannon et al. 1985:385). The authors indicated that "Both large-scale block excavations and extensive stratigraphic investigations are required" (Shannon et al. 1988:386). They recommended formulation of "an explicit research design formulated in recognition of all prior investigations in the study area and surrounding region"

(Shannon et al. 1988:386). They further recommended that the research design include detailed archival and geomorphological studies. It was anticipated that additional field and other research focused on 16SC61 would provide "...information on antebellum and postbellum landuse, and on the relationships that existed between mid-nineteenth century farmsteads and large plantations" (Shannon et al. 1988:386).

CHAPTER 8

FIELD INVESTIGATIONS

Introduction

This chapter presents the results of the 1991 field investigations at 16SC61. The work was designed to determine whether the site is eligible for listing on the National Register. Some changes had occurred, affecting conditions at the site. First, bankline erosion had affected those features initially identified at the site (Figure 13). Second, the bankline had been graded as part of a revetment project.

Prior to grading, Ms. Carroll Kleinhans of the NODCOE had made surface collections on the eroding beach. With the exception of that surface collection, all of the artifacts collected in the course of investigations reported here were derived from buried contexts. This distinction is important for assessing the integrity of the site which is one of the main factors for assessing National Register status.

Surface Collection

Collections were made of artifacts exposed on the surface of 16SC61 by Ms. Carroll Kleinhans of the New Orleans District, U.S. Army Corps of Engineers on July 30 and August 1, 1991. Artifacts were collected by 100 ft range sections using the flags laid in by the Corps survey crew (Figure 14). Ceramics, glass, asphalt, bone, brick, gravel, plaster, and slag were all collected between Ranges D-61 to D-70. The collected artifacts are presented in Tables 11 through 14.

One light green paneled pharmaceutical flask which probably dates to the second half of the nineteenth century was collected from the upriver end of the site. With this exception, only ceramics were diagnostic for the purpose of chronology. A total of 106 sherds representing a minimum of 59 vessels were collected. Most of the ceramics date to the antebellum period or earlier (faience, coarsewares, creamware, and pearlware) while others were manufactured both before and after the Civil War (whiteware, ironstone, stonewares, yellow-colored earthenwares, and English majolica). A few of the ceramics date to or after the late-nineteenth/early-twentieth century. These include transfer-printed ironstone, porcelaneous stoneware, and decaled porcelain. Thus, as was the case for material recovered

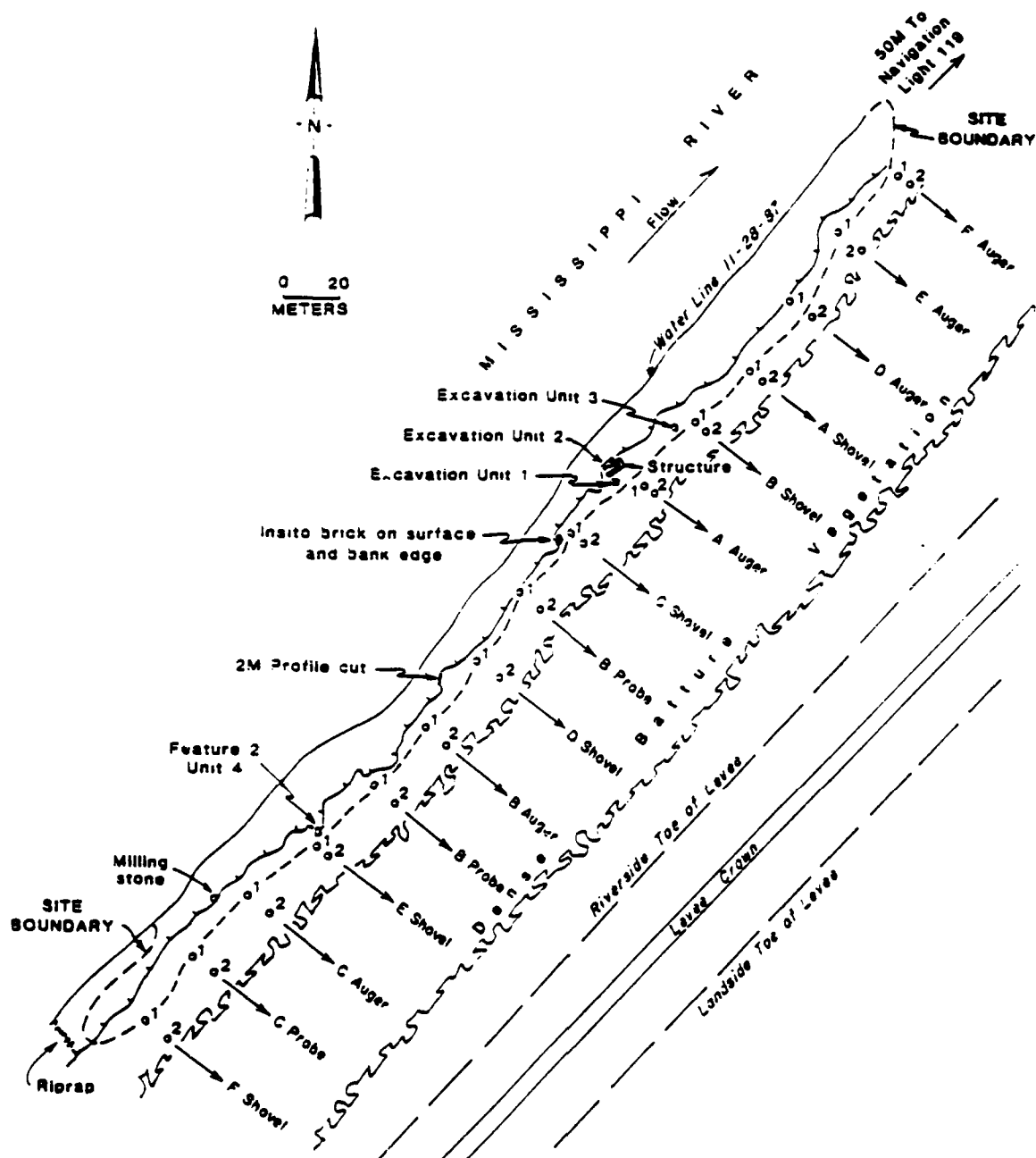


Figure 13. R. Christopher Goodwin and Associates' site map of 16SC61 (after Shannon et al. 1988: Figure 106).

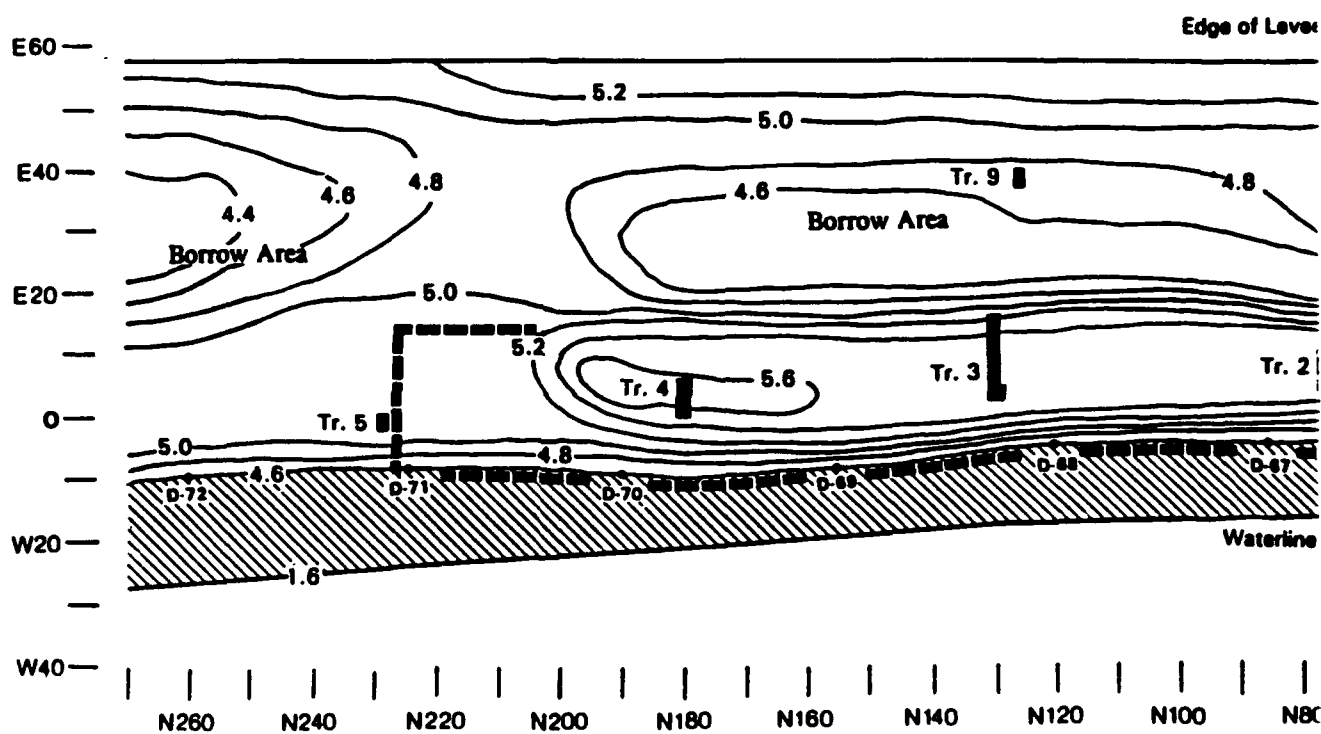


Figure 14. Site map approximates the visi

①

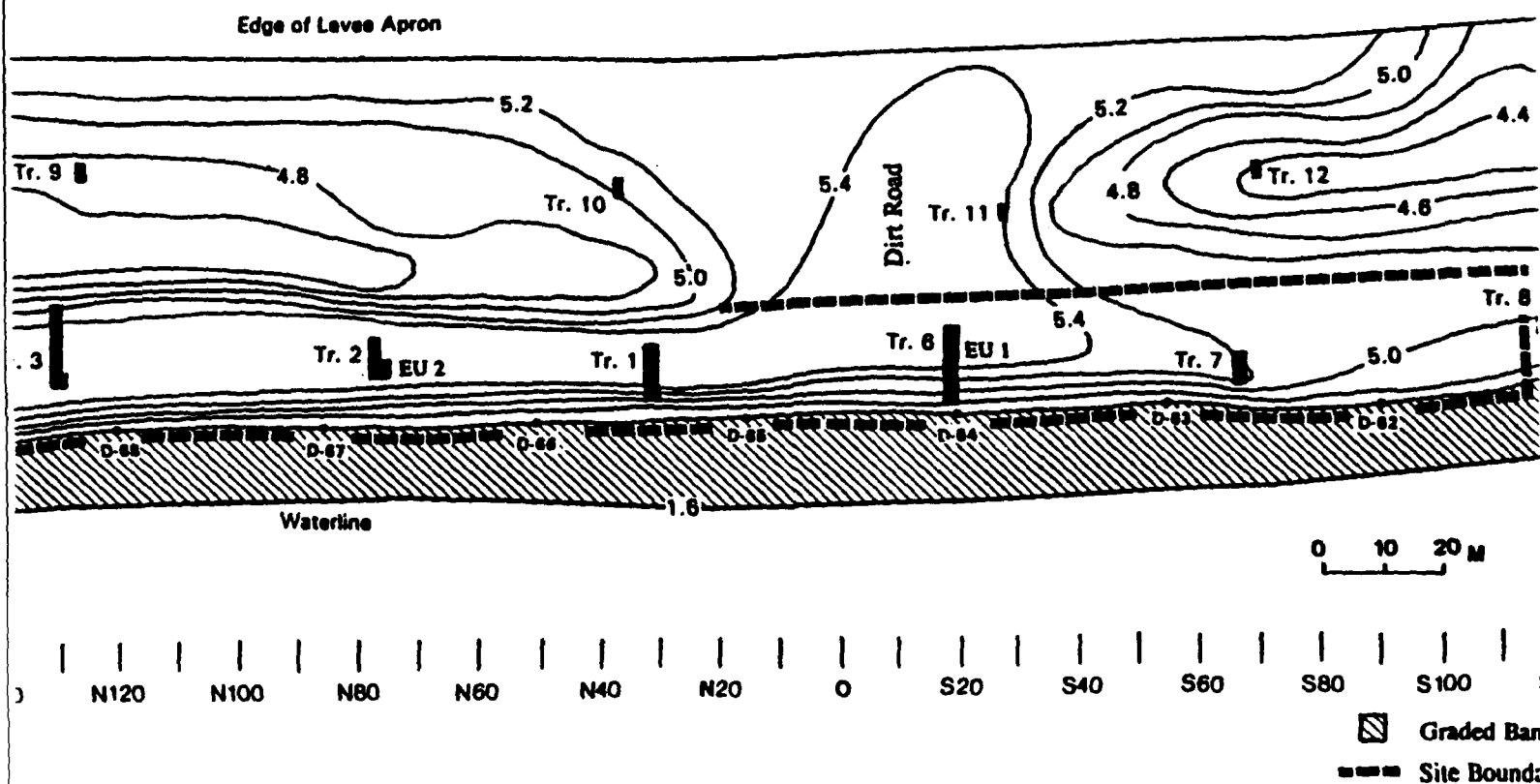
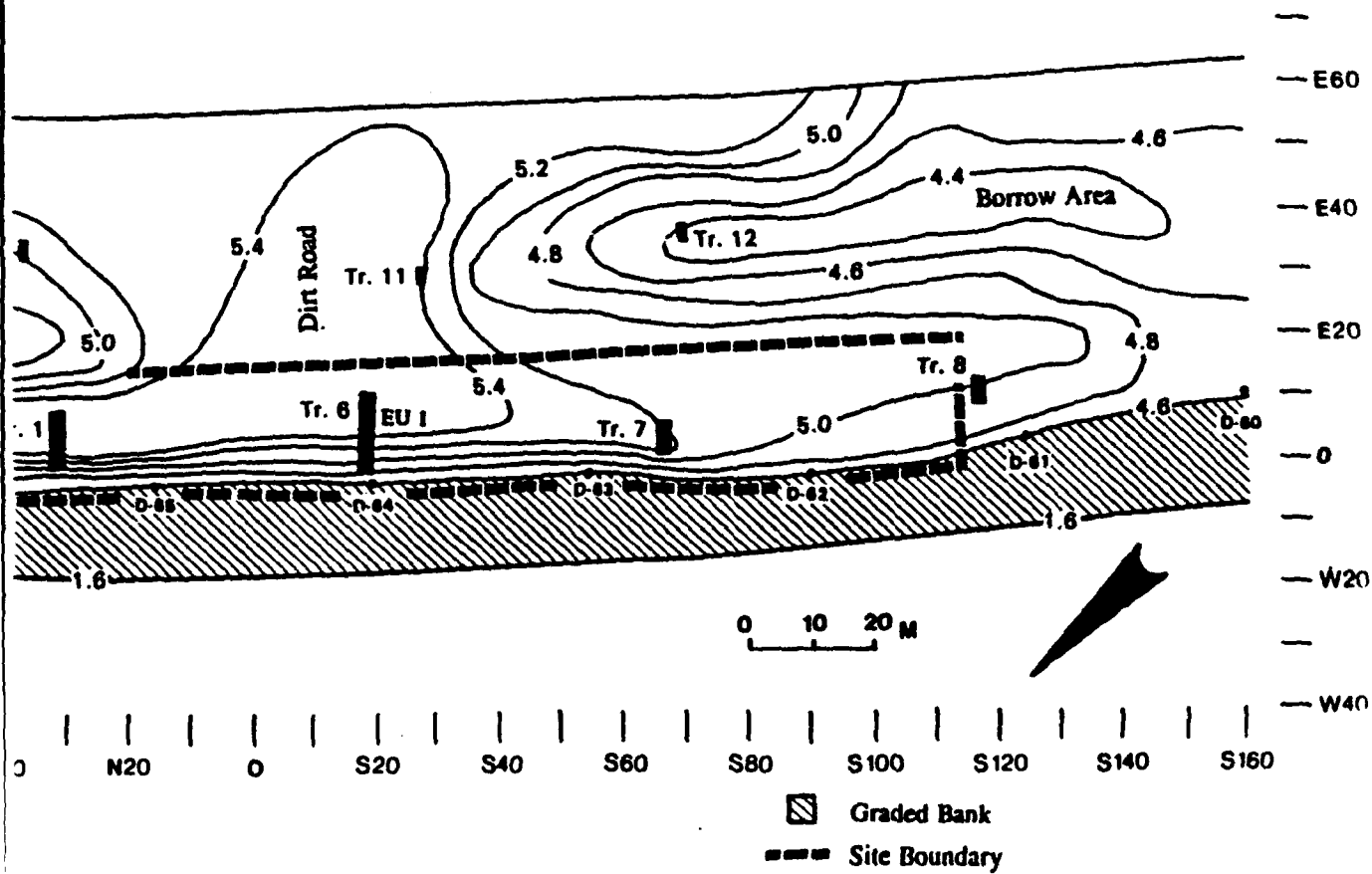


Figure 14. Site map of 16SC61. The 5.0 m contour line approximates the visible edges of the borrow areas.

2



The 5.0 m contour line
the borrow areas.

3

Table 11. Ceramics from Surface Collection, 16SC61.

	General Surface	Surface D61-63	Surface D62-D63	Surface D63-D64	Surface D64-D65
Faience Rouge Pot					2
Brown faience					2
Lined Blue Hand-Painted Brown					
Faience					1
Creamware		2		1	
Pearlware		1		1	
Blue hand-painted pearlware		1			1
Finger-painted pearlware					
Green shell-edged pearlware			1		
Blue shell-edged pearlware					1
Annular pearlware		2		1	6
Blue transfer-printed pearlware				1	
Pearlware-glazed white-colored earthenware				3	11
Black transfer-printed pearlware-glazed white-colored earthenware					1
Polychrome hand-painted whiteware					1

Table 11, continued.

	General Surface	Surface D61-63	Surface D62-D63	Surface D63-D64	Surface D64-D65
Annular whiteware					1
Blue shell-edged whiteware					
Mulberry transfer-printed whiteware					1
Sponged whiteware					1
Classic ironstone		2		2	2
Annular ironstone		1			
Flow blue ironstone				1	
Purple transfer-printed ironstone					
Gray transfer-printed ironstone					
Green transfer-printed ironstone					
Canton porcelain					1
Decaled porcelain					
Refined redware, white int. slip					1
English majolica					
Rockinghamware		4	3	1	3
Yellowware				1	
Annular yellowware		1			

Table 11, continued.

	General Surface	Surface D61-63	Surface D62-D63	Surface D63-D64	Surface D64-D65
Porcelaneous stoneware					1
Green-Glazed Redware					
White Slipped					
Interior and Green					
Glazed Exterior					
Redware					1
Lead-Glazed Pink					
Earthenware				1	
Westerwald stoneware		1			
Grey salt-glazed stoneware					1
Grey salt-glazed stoneware, albany- slipped interior					1
Brown salt-glazed stoneware, albany- slipped interior				1	
Stoneware bottle					1
Black slip-glazed brown stoneware					1
Aboriginal	1			1	
TOTAL	1	15	3	16	42

Table 11, continued.

	Surface D65-D65.5	Surface D66-D69	Surface D69-D70	TOTAL
Faience Rouge Pot				2
Brown faience				2
Lined Blue Hand- Painted Brown Faience				1
Creamware				3
Pearlware	1			3
Blue hand-painted pearlware		1		3
Finger-painted pearlware				1
Green shell-edged pearlware			1	2
Blue shell-edged pearlware	3	1	2	15
Annular pearlware				1
Blue transfer- printed pearlware		2		16
Pearlware-glazed white-colored earthenware				1
Black transfer- printed pearlware- glazed white- colored earthenware			1	1
Polychrome hand- painted whiteware				1

Table 11, continued.

	Surface D65-D65.5	Surface D66-D69	Surface D69-D70	TOTAL
Annular whiteare				1
Blue shell-edged whiteare			1	1
Mulberry transfer- printed whiteare				1
Sponged whiteare				1
Classic ironstone				6
Annular ironstone				1
Flow blue ironstone				1
Purple transfer- printed ironstone	1			1
Gray transfer- printed ironstone	3			3
Green transfer- printed ironstone			1	1
Canton porcelain				1
Decaled porcelain	1			1
Refined redware, white int. slip				1
English majolica	2			2
Rockinghamware	3			14
Yelloware				1
Annular yelloware	1			2

Table 11, continued.

	Surface D65-D65.5	Surface D66-D69	Surface D69-D70	TOTAL
Porcelaneous stoneware				1
Green-Glazed Redware	1			1
White Slipped Interior and Green Glazed Exterior Redware				1
Lead-Glazed Pink Earthenware				1
Westervald stoneware				1
Grey salt-glazed stoneware				1
Grey salt-glazed stoneware, albany- slipped interior				1
Brown salt-glazed stoneware, albany- slipped interior				1
Stoneware bottle	1			2
Black slip-glazed brown stoneware				1
Aboriginal	2	5	5	4
TOTAL	19	5	5	106

Table 12. Minimum Number of Vessels from Surface Collection, 16SC61.

	Plate	Hollowware	Lg Bowl	Lid	Bowl	Cup	Bottle
Faience Rouge Pot							
Lined Blue Hand-							
Painted Brown							
Faience					1		
Creamware	1				1		
Pearlware							
Blue hand-painted							
pearlware					2		
Finger-painted							
pearlware					1		
Green shell-edged							
pearlware	2						
Blue shell-edged							
pearlware	7					1	
Annular pearlware			1				
Blue transfer-							
printed pearlware	3				2	1	
Black transfer-							
printed pearlware-							
glazed white-							
colored earthenware	1						
Polychrome hand-							
painted whiteware							
Annular whiteware					1		
Blue shell-edged					1		
whiteware	1						
Mulberry transfer-							
printed whiteware	1						
Sponged whiteware							

Table 12, continued.

	Plate	Hollowware	Lg Bowl	Lid	Bowl	Cup	Bottle
Classic ironstone	1						
Annular ironstone					1		
Flow blue ironstone	1						
Purple transfer-printed ironstone				1			
Gray transfer-printed ironstone							
Green transfer-printed ironstone							
printed ironstone	1						
Canton porcelain	1						
Decalced porcelain							
Refined redware, white int. slip							
English majolica							
Rockinghamware		1					
Annular yellowware					1		
Porcelaneous stoneware							
Green-Glazed Redware							
White Slipped Interior and Green-Glazed Exterior Redware					1		
Lead-Glazed Pink Earthenware							

Table 12, continued.

	Plate	Hollowware	Lg Bowl	Lid	Bowl	Cup	Bottle
Westerwald stoneware							
Grey salt-glazed stoneware							
Grey salt-glazed stoneware, albany-slipped interior							
Brown salt-glazed stoneware, albany-slipped interior							1
Stoneware bottle							
Black slip-glazed brown stoneware							
TOTAL	20	1	1	1	12	2	1

Table 12, continued.

	Large Chamber Bottle	Pot	Small Pitcher	Pitcher	Crock
Faience Rouge Pot					
Lined Blue Hand- Painted Brown					
Faience					
Creamware					
Pearlware					
Blue hand-painted pearlware					
Finger-painted pearlware					
Green shell-edged pearlware					
Blue shell-edged pearlware					
Annular pearlware					
Blue transfer- printed pearlware					
Black transfer- printed pearlware- glazed white- colored earthenware					
Polychrome hand- painted whiteware					
Annular whiteware					
Blue shell-edged whiteware					
Mulberry transfer- printed whiteware					
Sponged whiteware					

1

Table 12, continued.

	Large Chamber Bottle	Pot	Small Pitcher	Pitcher	Crock
Classic ironstone					
Annular ironstone					
Flow blue ironstone					
Purple transfer- printed ironstone					
Gray transfer- printed ironstone	1				
Green transfer- printed ironstone					
Canton porcelain					
Decaled porcelain					
Refined redware, white int. slip			1		
English majolica					
Rockinghamware					
Annular yellowware	1				
Porcelaneous stoneware				1	
Green-Glazed Redware					
White Slipped					
Interior and Green- Glazed Exterior					
Redware					
Lead-Glazed Pink					
Earthenware					

Table 12, continued.

	Large Chamber Bottle	Pot	Small Pitcher	Pitcher	Crock
Westervald stoneware					1
Grey salt-glazed stoneware					
Grey salt-glazed stoneware, albany- slipped interior					
Brown salt-glazed stoneware, albany- slipped interior					1
Stoneware bottle					
Black slip-glazed brown stoneware					
98 TOTAL	1	2	1	1	2

Table 12, continued.

	Rouge Pot	Saucer	?	TOTAL
Faience Rouge Pot	2			2
Lined Blue Hand-Painted Brown				
Faience				1
Creamware				2
Pearlware				1
Blue hand-painted pearlware		1		3
Finger-painted pearlware				1
Green shell-edged pearlware				2
Blue shell-edged pearlware				8
Annular pearlware				1
Blue transfer-printed pearlware				6
Black transfer-printed pearlware-glazed white-colored earthenware				1
Polychrome hand-painted whiteware				1
Annular whiteware				1
Blue shell-edged whiteware				1
Mulberry transfer-printed whiteware				1
Sponged whiteware			1	1

Table 12, continued.

	Rouge	Pot	Saucer	?	TOTAL
Classic ironstone					2
Annular ironstone			1		1
Flow blue ironstone					1
Purple transfer-printed ironstone					1
Gray transfer-printed ironstone					1
Green transfer-printed ironstone					1
Canton porcelain					1
Decaled porcelain			1		1
Refined redware, white int. slip				1	1
English majolica					1
Rockinghamware				2	3
Annular yellowware					2
Porcelaneous stoneware					1
Green-Glazed Redware					1
White Slipped Interior and Green Glazed Exterior Redware					1
Lead-Glazed Pink Earthenware				1	1

Table 12, continued.

	Rouge Pot	Saucer	?	TOTAL
Westerwald stoneware				
Grey salt-glazed stoneware				1
Grey salt-glazed stoneware, albany-slipped interior			1	1
Brown salt-glazed stoneware, albany-slipped interior			1	1
Stoneware bottle				1
Black slip-glazed brown stoneware			1	1
TOTAL	2	3	9	59

Table 13. Glass from Surface Collection, 16SC61.

	Surface D61-63	Surface D62-D63	Surface D63-D64	Surface D64-D65	Surface D65-D65.5	Surface D69-D70	TOTAL
Blue glass						1	1
Brown bitters seal			1				1
Clear goblet base	1	1					1
Clear pressed glass			1				1
Lt. green glass					1		1
Lt. green paneled flask, 2 piece							
mold, tooled lip	1						1
olive glass	1	2	2	1			6
olive glass pickup				1			1
olive wine bottle pickup			1				1
TOTAL	3	2	5	2	1	1	14

Table 14. Miscellaneous Items Collected from the Surface, 16SC61.

	Surface D61-63	Surface D63-D64	Surface D64-D65	Surface D65-D65.5	Surface D66-D69	TOTAL
Asphalt (wt. in grams)				5.6		5.6
Bone		2	1	3	1	7
(wt. in grams)		24.3	4	16.3	32.6	77.2
Brick						
(wt. in grams)	10.8					10.8
Gravel						
(wt. in grams)			2.5	1.9		4.4
Plaster						
(wt. in grams)				11.3		11.3
Slag						
(wt. in grams)	1.9					1.9

during excavations, the majority of the ceramics appeared to be antebellum in origin.

Mean ceramic dates were calculated for individual collection proveniences and combinations of collection proveniences. The ceramics from the area between D-61 and D-63 yielded a mean ceramic date of 1838.61 (n=18), while ceramics from D-63 through D-64 produced a similar date of 1833.57 (n=14). The relatively large collection found between D-64 and D-65 dated to 1823.33 (n=36). The most recent ceramics were collected between D-65 and D-65.5 (1863.71, n=14). Finally, the few ceramics found between D-66 and D-70 yielded a date of 1822.60 (n=10).

Site Map

Figure 14 is a topographic map of 16SC61. Field measurements were taken with a six-inch Schneider transit. Locations of all trench excavations and of selected cultural and natural features were obtained.

A United States Geological Survey marker on the land side of the levee directly across from the site was used to calculate elevations in terms of the National Geodetic Vertical Datum (NGVD). Elevation of that marker was 2.888 m (9.475 feet).

The line of the top of the graded river bank was used as site north in order to facilitate field operations. This was at 228° relative to magnetic north. Grid coordinates discussed in this report are all relative to site north.

Figure 14 shows the locations of the twelve backhoe trenches that were excavated at the site. It also shows the water line of the Mississippi River during the period of field work (about 1.5 m NGVD), the top of the graded bank adjacent to the river (about 4.6 m NGVD), and the river side toe of levee (about 5.2 m NGVD). The linear depression on the west side of the levee is a partially infilled borrow pond which is referred to repeatedly in this chapter. At approximately S15 the map shows a dirt road which was constructed across the borrow pond during the period of bankline grading for revetment.

The elevation of the relatively level portion of the batture, i.e. the area between the borrow pond and the graded bank, is about 5.4 m NGVD. The difference in elevation compared to the USGS marker on the land side of the levee is approximately 2.5 m. That difference is

the result of alluviation that is the result of artificially confining the river. The deepest part of the borrow pond near its center is at an elevation of approximately 4.4 m. This is relatively shallow and reflects infilling that has occurred due to alluvial deposition since the pond was initially excavated for levee construction in ca. 1930.

Methods for Excavation of Trenches

Twelve trenches were excavated with a backhoe. Their locations are shown in Figure 14 and their grid coordinates are presented in Table 15. During excavation, three individuals were assigned to monitor the trenches. Two of these individuals were situated on either side of trench, and the third was examining the backdirt during excavation.

Trenches 1 through 8 were located on the west side of the borrow pond. They were spaced approximately 50 m apart. An effort was made to remove only 10 cm of soil or less in each backhoe bucket. When artifacts were encountered, the amount of fill removed was reduced to five or fewer centimeters. Each trench was excavated as a series of "Lengths" which were approximately 2 m long. The first Length of Trenches 1 through 8 was just west of the western side of the borrow pond (Figure 14). Subsequent Lengths extended the trenches in the direction of the river. The Lengths for each trench were designated Length 1, 2, etc.

A datum stake was placed at one corner of each of the trenches. A line level was then used to measure the depth of the trench for all buckets which contained artifacts. For much of the discussion which follows, depths have been converted into NGVD equivalencies because elevation in terms of NGVD for this buried site is more comparable between proveniences than is depth below surface. The latter measurement is somewhat variable due to varying amounts of overburden. Table 16 provides a general summary of elevations of cultural materials recovered in all of the trenches.

When suspected features or artifact concentrations that suggested the possibility of features were encountered, use of the backhoe ceased and one of the monitoring individuals entered the trench. That individual would clean surfaces with a trowel or shovel and carefully examine the trench floor and walls.

Table 15. Grid Coordinates and Elevations for Backhoe Trenches (Site North is 318° 55' 0").

Trench 1	Co-ordinates	Elevation (NGVD)
SE corner	N30.65 E8.26	5.67
NE corner	N32.04 E8.08	5.69
SW corner	N30.23 W0.07	--
NW corner	N31.66 W0.13	--
Trench 2	Co-ordinates	Elevation (NGVD)
SE corner	N76.69 E9.35	5.72
NE corner	N78.18 E9.06	5.59
SW corner	N75.07 E3.33	5.67
NW corner	N78.03 E3.22	5.68
Trench 3	Co-ordinates	Elevation (NGVD)
SE corner	N129.80 E16.22	5.14
NE corner	N131.60 E16.07	5.11
SW corner	N128.04 E1.92	5.15
NW corner	N130.45 E1.81	5.15
Trench 4	Co-ordinates	Elevation (NGVD)
SE corner	N179.44 E5.73	5.66
NE corner	N181.58 E5.80	5.73
SW corner	N180.00 W0.91	5.47
NW corner	N181.90 W0.90	5.42
Trench 5	Co-ordinates	Elevation (NGVD)
SE corner	N227.94 E0.48	5.09
NE corner	N229.85 E0.32	5.04
SW corner	N228.02 W2.27	4.94
NW corner	N229.66 W2.33	4.85
Trench 6	Co-ordinates	Elevation (NGVD)
SE corner	S20.29 E11.27	5.51
NE corner	S18.296 E11.462	5.44
SW corner	S19.904 W1.31	5.26
NW corner	S17.648 W1.26	5.18

Table 15 (continued). Grid Coordinates and Elevations
for Backhoe Trenches (Site North is 318° 55' 0").

Trench 7	Co-ordinates	Elevation (NGVD)
SE corner	S68.042 E5.771	5.30
NE corner	S66.120 E5.570	5.29
SW corner	S68.115 E1.115	4.98
NW corner	S66.522 E1.043	5.01
Trench 8	Co-ordinates	Elevation (NGVD)
SE corner	S116.76 E13.275	5.03
NE corner	S116.015 E13.109	5.07
SW corner	S117.52 E9.676	4.80
NW corner	S117.648 E9.313	4.88
Trench 9	Co-ordinates	Elevation (NGVD)
Datum	N126.12 E38.04	4.83
Trench 10	Co-ordinates	Elevation (NGVD)
Datum	N36.45 E35.28	5.13
Trench 11	Co-ordinates	Elevation (NGVD)
Datum	S28.64 E30.11	5.48
Trench 12	Co-ordinates	Elevation (NGVD)
Datum	S48.02 E43.08	4.35

Table 16. Summary of NGVD Data for Artifacts Collected from Subsurface Proveniences.

Provenience	Material	NGVD (in meters)
Trench 1	Ceramics	3.32 - 3.62
	Glass	3.52 - 3.59*
	Metal	3.45 - 3.62
	Personals	3.59 - 3.62
Trench 2	Ceramics	4.08 - 4.24
	Glass	4.08 - 4.30
	Metal	4.04 - 4.27
	Miscellaneous	4.20 - 4.27
Trench 3	Ceramics	3.01 - 3.11
	Glass	4.45**
	Metal	4.35***
	Miscellaneous	3.16 - 3.45
Trench 4	Metal	3.79 - 3.88
	Miscellaneous	3.88
Trench 6	Ceramics	3.03 - 3.68
	Glass	3.33 - 3.57****
	Metal	3.33 - 3.59
	Miscellaneous	3.33 - 3.59
Trench 7	Ceramics	2.82 - 3.58
	Glass	3.52
	Metal	2.97 - 3.52
	Miscellaneous	2.97 - 3.52

*Excludes one clear glass bottle base from 4.82

**Consist of one Coca-Cola bottle neck and two light green glass sherds

***One steel animal trap at same depth as Coca-Cola bottle fragments

****Excludes one clear glass screw top bottle at 4.65

Field notes which were maintained throughout trench excavation and the results of artifact analyses are the basis for the detailed discussion of each trench that follows. A subsequent section of the report will provide interpretations of the site as a whole. Appendix II summarizes those portions of the field notes that record observations made during backhoe excavations.

Trenches 9 through 12 were located at the eastern edge of the borrow pond near the riverside toe of levee. Methods for excavation of these trenches were the same as those described for Trenches 1 through 8 (above).

Insofar as artifacts were concerned, ceramics were identified utilizing the paradigmatic classification summarized in Appendix III. Illustrations of representative ceramics are also contained within Appendix III. Glass was described by color, manufacturing attributes, and function when identifiable; at minimum, sherds were sorted by color. Other artifacts were described and dated as possible.

Trench 1

Trench 1 was approximately 8 m in length. Its location is shown in Figure 14, and grid coordinates are provided in Table 15. It was excavated to depths ranging from approximately 2 to 3 m below surface (3.2 to 2.2 m NGVD). Water table was encountered at approximately 2.5 m below surface (2.7 m NGVD).

Appendix II summarizes observations recorded during backhoe excavation. These observations and Table 16 indicate that historic cultural material was consistently recovered at approximately 3.6 to 3.4 m NGVD (ca. 160 to 180 cm below surface). It is important to note that artifact depths recorded in the course of excavation by backhoe are less precise than would be the case for excavation by hand. The result is that there may be 10 or even 20 cm discrepancies between depths taken while the backhoe is actually in use as compared to profiles drawn after excavation is completed.

Figure 15 is a profile of a portion of the north wall of Trench 1. The profile shows a brick within a stratum of 10YR 3/1 (very dark gray) silty clay (Stratum G). The stratum lies between approximately 3.7 and 3.5 m NGVD, thus measuring only about 20 cm in thickness. This was the stratum from which historic cultural materials appeared to derive in Trench 1. A gravel lens

Key to Figure 15

- A 10YR 4/4 (dark yellowish brown) silt (disturbed)
- B 10YR 3/2 (very dark grayish brown) clay
- C 10YR 3/3 (dark brown) silt [with 10YR 4/1 (dark gray) mottling]
- D 10YR 3/2 (very dark grayish brown) clay
- E 10YR 3/2 (very dark grayish brown) clayey silt
- F 10YR 3/3 (dark brown) silty clay [with 5YR 3/3 (dark reddish brown) mottling]
- G 10YR 3/1 (very dark gray) silty clay (with cultural material)
- H 10YR 4/1 (dark gray) silty clay [with 5YR 4/6 (yellowish red) mottling]

S31.68 E7.80

S31.68 E3.80

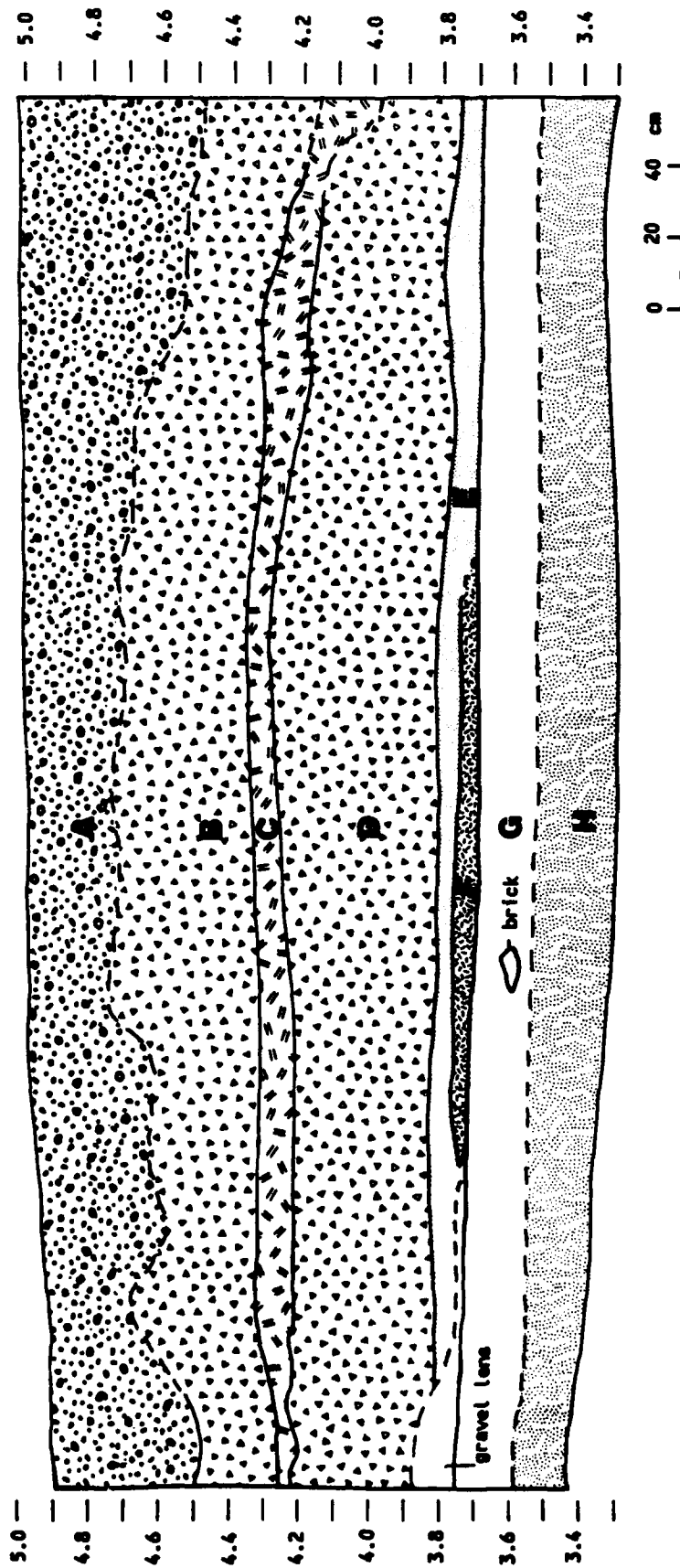


Figure 15. Profile of the north wall of Trench 1.

is shown just above this stratum in the same profile. This lens, or a similar concentration of gravel, generally was found in association with the historic cultural material in other trenches at the site.

Historic artifacts were not recovered from "Length 1" or "Length 2" of Trench 1. These represented the approximately 3.3 m of the trench which were farthest from the river and therefore closest to the borrow pond. This culturally sterile portion of the trench was not profiled because it was excavated to depths below water table which resulted in unstable walls.

The strata at the eastern end of the profile (Figure 15) appear to slope downward. The downward slope of the strata here may suggest that the western edge of the borrow pond extended to this area at one time but has since been infilled. If this were the case, then the infilled pond would have been even deeper within Length No. 1 and No. 2. If it was originally deeper than the culture-bearing Stratum G, this would explain why no artifacts were recovered from this portion of Trench 1. It would also indicate that the eastern side of the site was truncated at the time the borrow pond was excavated. If the eastern portion of the profile of Figure 15 does in fact represent an infilled portion of the borrow pond, then at least 1 m of alluvium has been deposited on this portion of the batture since the time the pond was excavated.

The actual date of excavation of the borrow pond is unknown, but an historic map (Figure 12) suggests that it probably predates 1930. The entire pond has become somewhat infilled and supports relatively mature trees. Also, it is not depicted on the USGS quadrangle and only one portion of it is shown on the "Hydrographic Survey" map (Figures 1 and 2). Its absence on these maps is undoubtedly due to general infilling of and vegetative growth within the borrow pond. The shallow depth of the borrow pond (Figure 14) is further evidence of infilling. That infilling is important to the interpretation of 16SC61 as will be further discussed.

Tables 17, 18, 19, 20, and 21 summarize artifacts recovered from Trench 1. Ceramic sherds provided the most specific temporal information. Table 18 shows that a total of 19 sherds representing a minimum number of five vessels were recovered, and all of these occurred at 3.6 to 3.3 m NGVD. Seventeen of these were pearlware, one was whiteware, and one was classic

Table 17. Ceramics from Trench 1, 16SC61.

NOTE: On this and all subsequent artifact tables in this chapter, the first set of figures below the provenience information provides depth below datum. The second set of numbers provides relative elevation in terms of NGVD.

	T1L3	T1L3	T1L4	T1L4	T1L4	T1L4	T1L4	T1L5
	167-177	180-190	160-164	164-167	167-170	167-177	161-163	
	3.55-3.45	3.42-3.32	3.62-3.58	3.58-3.55	3.55-3.52	3.55-3.45	3.61-3.59	
Pearlware	2	2	2		1	2		1
Blue shell-edged pearlware		1						
Blue transfer- printed pearlware				1				1
Whiteware								
Classic ironstone								
TOTAL	2	3	2	1	1	2		2

Table 17, continued.

	T1L5 163-168 3.59-3.54	T1L5 172-175 3.5-3.47	T1L6 163-165 3.59-3.57	T1L6 185-190 3.37-3.32	T1L7 160-163 3.62-3.59	TOTAL
Pearlware			1	1		12
Blue shell-edged pearlware						1
Blue transfer- printed pearlware	1	1			1	4
Whiteware					1	1
Classic ironstone					1	1
TOTAL	1	1	1	1	2	19

Table 18. Minimum Number of Vessels from Trench 1,
16SC61.

	Plate	Bowl	?	TOTAL
Blue shell-edged pearlware	1			1
Blue transfer- printed pearlware		1	1	2
Whiteware			1	1
Classic ironstone	1			1
TOTAL	2	1	2	5

Table 19. Glass from Trench 1, 16SC61.

	T1L4	T1L5	T1L6	T1L7	TOTAL
	40	168-170	160-163	163-166	
	4.82	3.54-3.52	3.62-3.59	3.59-3.56	
Blue glass			1		1
Clear glass base	1				1
Olive glass		1		2	3
Olive wine bottle base, kickup				1	1
TOTAL	1	1	1	3	6

Table 20. Personal Items from Trench 1, 16SC61.

	T1L7
	160-163
	3.62-3.59
Kaolin pipestem	1

Table 21. Metal from Trench 1, 16SC61.

	T1L4	T1L7	T1L7	TOTAL
	160-164	166-169	172-177	
	3.62-3.58	3.56-3.53	3.5-3.45	
Square nail			1	1
Unid. nail	1			1
Unid. wire		1		1
TOTAL	1	1	1	3

ironstone. Together they yielded a mean ceramic date of 1813.26 (n=19).

Of these sherds, the ironstone is temporally the latest, and it provides a *terminus post quem* of 1850 for the termination of deposition. While this ironstone fragment was recorded as coming from one of the deepest portions of the culture-bearing stratum, this should not be interpreted as evidence of disturbance because of the limited nature of control during backhoe excavations. The absence of creamware strongly suggests that initial occupation post-dates ca. 1800, but this may be the result of sampling error. The ceramic collection strongly suggests an antebellum occupation despite its small size.

None of the non-ceramic artifacts collected were diagnostic for chronological purposes. Glass artifacts lacked datable manufacturing attributes. The single kaolin pipestem recovered is consistent with an antebellum date. Finally, the one identifiable nail recovered was square cut, suggesting a date within the first three-quarters of the nineteenth century.

Table 18 presents minimum number of vessels counts for the ceramic collection from Trench 1. These were utilized along with data from the other trenches and from the surface collections to calculate ceramic index values (Miller 1980, 1991) for the site (Chapter 9).

Trench 2

Grid coordinates for this trench are provided in Table 15, and its location is shown in Figure 14. It was approximately 6 m in length. The eastern end of the trench was located approximately 1 m further east than that of Trench 1 in order to further explore the relationship of the various strata to the borrow pond. The trench was excavated to depths of 186 to 210 cm below surface (4.0 to 3.6 m NGVD). Deeper excavation of the trench was not attempted because this would have resulted in unstable walls. After the excavation of Trench 1, it was apparent that it was desirable to obtain a complete profile of a long trench for comparison with other trenches. The southern side of the trench was stepped in order to allow relatively easy and safe access to the entire trench for profiling.

Length 1 of this trench (representing approximately 3 m in length at the eastern end) was culturally sterile to a depth of 210 cm (3.8 m NGVD). Length 2 (an additional 1 m in length) also appeared to be sterile to a depth of 230 cm (3.6 m NGVD). This relative elevation was comparable to that at which historic artifacts began to be recovered in Trench 1, and it was below that at which gravel was encountered in Trench 1. After this portion of the trench was excavated, the backhoe was used to clean the floor and the west wall. While this cleaning was underway, large brick fragments were recovered from the western wall, i.e. from that portion of the trench farthest from the borrow pond. They occurred at 3.6 m NGVD.

Length 3 of Trench 2 was the westernmost portion of the trench. Brick and other artifacts were recovered at relative elevations of 4.3 to 4.0 m NGVD. Excavation was halted at 4.0 m NGVD because large amounts of brick were encountered, and it was considered possible that these were associated with a feature. For this reason, the westernmost portion of the trench was expanded to the south in order to allow placement of a 2 x 2 m unit within the trench (below). An effort was made to leave approximately 10 to 20 cm of soil in place above the level of the suspected feature.

Tables 22, 23, 24, 25, and 26 list the artifacts recovered from Trench 2. Table 23 shows that only three sherds representing a minimum of two vessels were recovered from this trench. One of these sherds was pearlware. The other two sherds were late-nineteenth/early-twentieth-century ironstone and decaled

Table 22. Ceramics from Trench 2, 16SC61.

	T2L3 163-170 4.27-4.2	T2L3 176-182 4.14-4.08	T2L3EX 162 4.24	TOTAL
Blue shell-edged pearlware			1	1
Ironstone		1		1
Decaled ironstone	1			1
TOTAL	1	1	1	3

Table 23. Minimum Number of Vessels from Trench 2, 16SC61.

	Plate	Serving Bowl	TOTAL
Blue shell-edged pearlware	1		1
Decaled ironstone		1	1
TOTAL	1	1	2

Table 24. Glass from Trench 2, 16SC61.

	T2L3	T2L3	T2L3	T2L3	T2L3	T2L3XP	TOTAL
	163	160-170	172-176	176-182	163-169		
	4.27	4.3-4.2	4.18-4.14	4.14-4.08	4.27-4.21		
Clear vaseline bottle		2					2
Window glass	2	18	3	1	5		29
TOTAL	2	20	3	1	5		31

Table 25. Metal from Trench 2, 16SC61.

	T2L3 163-170 4.27-4.2	T2L3 182-186 4.08-4.04	TOTAL
Square nail		1	1
Strap metal	1		1
TOTAL	1	1	2

Table 26. Miscellaneous Items from Trench 2, 16SC61.

	T2L3 163-170 4.27-4.2	T2L3XP 163-169 4.27-4.21	TOTAL
Brick (wt. in grams)	9.1	7.6	16.7
Gravel (wt. in grams)	3.9		3.9

ironstone. Tables 22 and 24 show that within one portion of the trench (Length 3 and its expansion) pearlware, decaled ironstone, and a clear Vaseline bottle were recovered.

The culture-bearing stratum (Stratum G) is once again a 10YR 3/1 silty clay (Figure 16), the same as that observed within Trench 1. However, the upper surface of the stratum slopes fairly dramatically (ca. 40 cm) from W to E, i.e. from the river towards the borrow pit. Two other strata (E and F) as well as the upper surface of Stratum D exhibit similar slopes. The direction of the slope again suggests that the borrow pit once extended further west than is the case at present, and that this shallower portion of the pond is now completely infilled.

Key to Figure 16

- A 10YR 5/3 (brown) silt (disturbed)
- B 10YR 3/2 (very dark grayish brown) clayey silt
(root disturbed layer)
- C 10YR 4/3 (brown/dark brown) fine sandy silt (with
thin beds of clayey silt)
- D 10YR 3/3 (dark brown) clay
- E 10YR 4/3 (brown/dark brown) clayey silt
- F 10YR 4/3 (brown/dark brown) silty clay (with iron
oxide mottling)
- G 10YR 3/1 (very dark gray) silty clay (with brick
fragments)

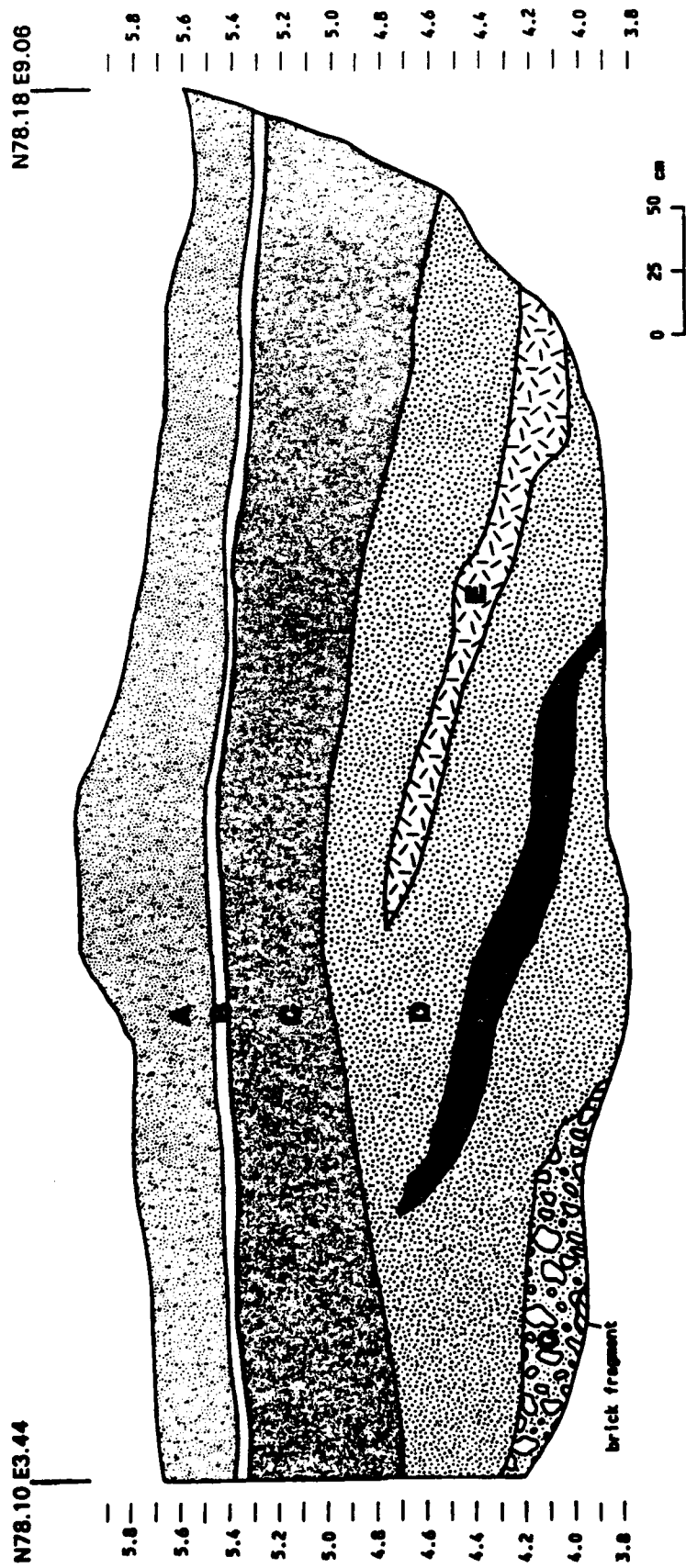


Figure 16. Profile of the north wall of Trench 2.

Excavation Unit 2 (Located Within Trench 2)

As noted above, the western portion of Trench 2 was expanded to allow hand excavation within a 2 x 2 m area at approximately 4.0 m NGVD. It was at this relative elevation that a concentration of bricks suggested a possible feature. In order to explore this possibility, a 1 x 2 m unit was placed within the trench. Initially, the "overburden" atop the unit was removed by shovel-shaving. The overburden consisted of loose soil which the backhoe had not completely removed from the floor of the trench.

The soil from this unit was not screened but all of the observed artifacts were collected. Tables 27, 28, 29, 30, and 31 summarize those artifacts. Tables 28 and 31 show that clear glass, bottle caps, brick fragments and shell were collected from the overburden.

After removing the overburden, depths were obtained for the upper surface of the unit. Because a backhoe had been used to excavate to this depth, relative elevations were somewhat variable. For the four corners of the unit, these ranged from 4.45 to 4.26 m NGVD.

The uppermost 10 cm of soil in the unit was removed by shovel-shaving and designated Level 1. Cultural materials included brick fragments, gravel, mortar, plaster, non-diagnostic glass, a square nail, bottle caps, wire, miscellaneous metal, and one stoneware sherd.

When Level 1 was completed, elevations of the four corners of the unit ranged from 4.35 to 4.26 m NGVD. Level 2 consisted of the next 10 cm of fill. The same methods were used for excavation. The floor of the unit was level at 4.25 m NGVD when Level 2 was fully excavated.

Artifacts recovered from Level 2 included brick fragments including clinkers, as well as gravel, mortar, plaster, *Rangia*, glass, nails (both wire and square), bottle caps, machine parts, a fuse, a linoleum fragment, miscellaneous metal, a shell button, and one whiteware sherd. The amount of gravel recovered was greatly increased relative to the level above. This was reflected in the layer of gravel that was observed across the floor of the unit when the level was completed. Also, most of the glass recovered from the three levels derived from this level.

Table 27. Ceramics from Excavation Unit 2, 16SC61.

	EU2 Lv11	EU2 Lv12	EU2 Lv13	TOTAL
Whiteware		1	2	3
Brown salt-glazed stoneware, albany- slipped interior	1			1
TOTAL	1	1	2	4

Table 28. Glass from Excavation Unit 2, 16SC61.

	EU2 Overburden	EU2 Lv11 4.45- 4.35	EU2 Lv12 4.35- 4.25	EU2 Lv13 4.25- 4.15	TOTAL
Amethyst glass		1			1
Blue glass			1		1
Clear glass	1	1	17	3	22
Clear glass base			1		1
Clear jar threaded rim			2		2
Clear "Mazda" glass headlight grill		1	13		14
Green glass		2	4		6
Pane glass			2	3	5
Window glass			1		1
Yellow jar base			1		1
TOTAL	1	5	42	6	54

Table 29. Metal from Excavation Unit 2, 16SC61.

	EU2 Over- burden	EU2 Lvl 1 NE Quad	EU2 Lvl 2	EU2 Lvl 3	TOTAL
Wire nail			1	7	8
Square nail			4	10	15
Unid. nail		1	7	20	27
Spike				2	2
Tack				5	5
Staple				1	1
Bottle cap	2	8	14	11	35
Machine part			3	2	5
Strap metal			3		3
Copper wire			1		1
Unid. metal		3	15	14	32
(wt. in grams)		4.5	89.2	36.2	
TOTAL	2	12	48	72	134

Table 30. Clothing and Architectural Items from
Excavation Unit 2, 16SC61.

	EU2 Lvl 2	Eu2 Lvl 3	Total
Shell button, Type S7	1		1
Fuse	1		1
Linoleum fragment	1	3	4
Ceramic insulator		1	1
Total	3	4	7

Table 31. Miscellaneous Items from Excavation Unit 2, 16SC61.

	EU2 Overburden	EU2 Lv11	EU2 Lv12	EU2 Lv13	TOTAL
Brick (wt. in grams)	143.7	65.7	70.7		280.1
"Clinker" brick (wt. in grams)			99.8	252.4	352.2
Burned soil clumps (wt. in grams)		13.5	29.5		43
Charcoal (wt. in grams)				0.2	0.2
Gravel (wt. in grams)		249.4	907.2	68.4	1225
Mortar (wt. in grams)		102.3	69	49.9	221.2
Plaster (wt. in grams)		5.2	56.4		61.6
Rangia shell (wt. in grams)	11.2		31.8		43

Level 3 was a 10 cm level from 4.25 to 4.15 m NGVD. The layer of gravel was removed, but because of the quantity of gravel present, all of it was not collected. Also, bricks and brick fragments, with the exception of clinkers, were not collected from this level. Other artifacts consisted of plaster, glass, nails (both wire and square), bottle caps, other metal items, linoleum fragments, ceramic insulator, and two whiteware sherds.

The admixture of artifacts from different time periods was dramatic within this unit. One sherd of amethyst glass was collected. This was probably manufactured no later than ca. 1920. Also present were three sherds of whiteware (antebellum) and one of stoneware (probably pre-1920). All of these co-occurred with fourteen sherds of a headlight grill that was embossed with the word "Mazda." This was a trade name used by either General Electric or Westinghouse in the middle of the twentieth century, possibly as early as 1920 (Howard Earnest, personal communication 1992). Also interesting was the recovery of 35 bottle caps, which was an exceedingly high number relative to the number of glass sherds recovered. Finally, 50 nails (wire, square cut, and unidentifiable) were collected from the unit. This large number of nails suggests that a frame structure was formerly located in this vicinity, or that structural refuse was deposited here at some point.

The artifacts from the three levels of Excavation Unit 2 were derived from relative elevations of 4.45 to 4.15 m NGVD. Similar artifacts from Trench 2 proper were recovered between 4.30 to 4.04 m NGVD. These relative elevations are approximately 70 to 80 cm above those which in Trench 1 yielded artifacts indicative of a pure antebellum component. Recovery of antebellum ceramics (whiteware) as well as square-cut nails in vertical and horizontal association with twentieth century headlight fragments is evidence for severe disturbance at relative elevations of about 4 m NGVD and above. Strata observed in Trench 2, in combination with the nature and elevation of the artifacts recovered from the trench, suggest that the western portions of the borrow pond at 16SC61 have been rapidly infilled during the twentieth century.

Trench 3

This trench was located approximately 50 m north of Trench 2 (Figure 14, Table 15). It was approximately 4 m in length. Along most of that length, it was excavated with a backhoe to a depth of approximately 2.5 m below surface, which represented water table. Its eastern end was closer to the borrow pond than that of either Trenches 1 or 2. Appendix II presents a summary of observations made during the excavation. The appendix shows that plastic was recovered from depths as great as ca. 180 cm (3.45 m NGVD) within the easternmost portion of the trench. The relative elevation of this twentieth-century artifact is comparable to that of the pure antebellum component in Trench 1.

This plastic was recovered from the portion of the trench closest to the present-day borrow pit. The presence of plastic at such depths suggests that it came from that portion of the borrow pit which, based on observations made within Trench 2, has become infilled in recent times. Slightly further west in the trench other modern materials such as a Coca-Cola bottle cap and an oil filter were recovered at depths of approximately 80 to 110 cm (4.45 to 4.15 m NGVD). The same explanation is possible if not probable for the recovery of these items.

Examination of the profile in Figure 17 shows that most of the strata slope from W to E. The slope is most dramatic in Strata C through I. The relative elevations of the upper surfaces of these strata are approximately 50 to 100 cm lower at the eastern end of the trench, i.e. adjacent to the borrow pond. Again, this suggests that the borrow pond was at one time more extensive but has become infilled. This explanation of the profile is consistent with recovery of artifacts discussed in the preceding paragraphs and in the context of Trench 2 and Excavation Unit No. 2.

Appendix II shows that brick was encountered only in the westernmost portion of the trench, i.e., that part of the trench which was closest to the river. It was noted at depths of 180 to 214 cm (3.65 to 3.31 m NGVD). Tables 32, 33, and 34 summarize artifacts recovered from Trench 3. Few items were recovered, but a steel trap and three sherds of bottle glass were recovered at 4.35 and 4.45 m NGVD, respectively. Although two of the glass sherds were non-diagnostic, one was a fragment of a Coca-Cola bottle neck. It should be noted that this apparently recent material

Key to Figure 17

- A 10YR 5/3 (brown) silt (with root disturbance)
- B 10YR 3/2 (very dark grayish brown) silty clay (with root disturbance)
- C 10YR 4/3 (brown/dark brown) fine sandy silt
- D 10YR 3/2 (very dark grayish brown) clay (with root disturbance)
- E 10YR 4/3 (brown/dark brown) silt
- F 10YR 3/3 (dark brown) clayey silt
- G 10YR 3/3 (dark brown) silty clay
- H 10YR 3/3 (dark brown) fine sandy silt
- I 10YR 3/2 (very dark grayish brown) clay
- J 10YR 3/1 (very dark gray) clay
- K N 3/0 (2.5Y) (very dark gray) clay

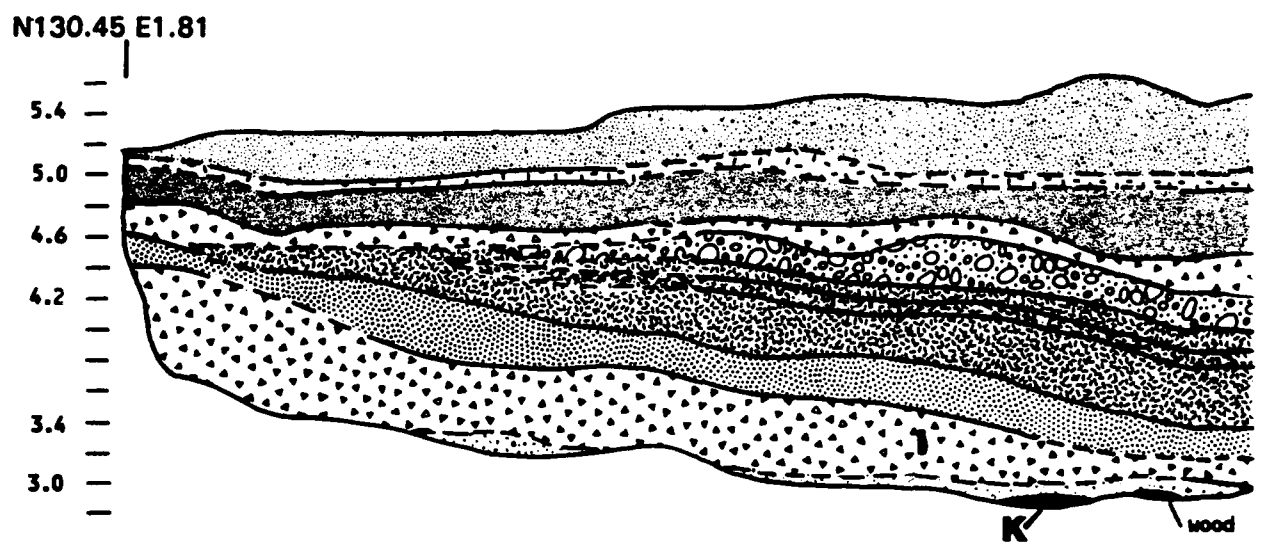
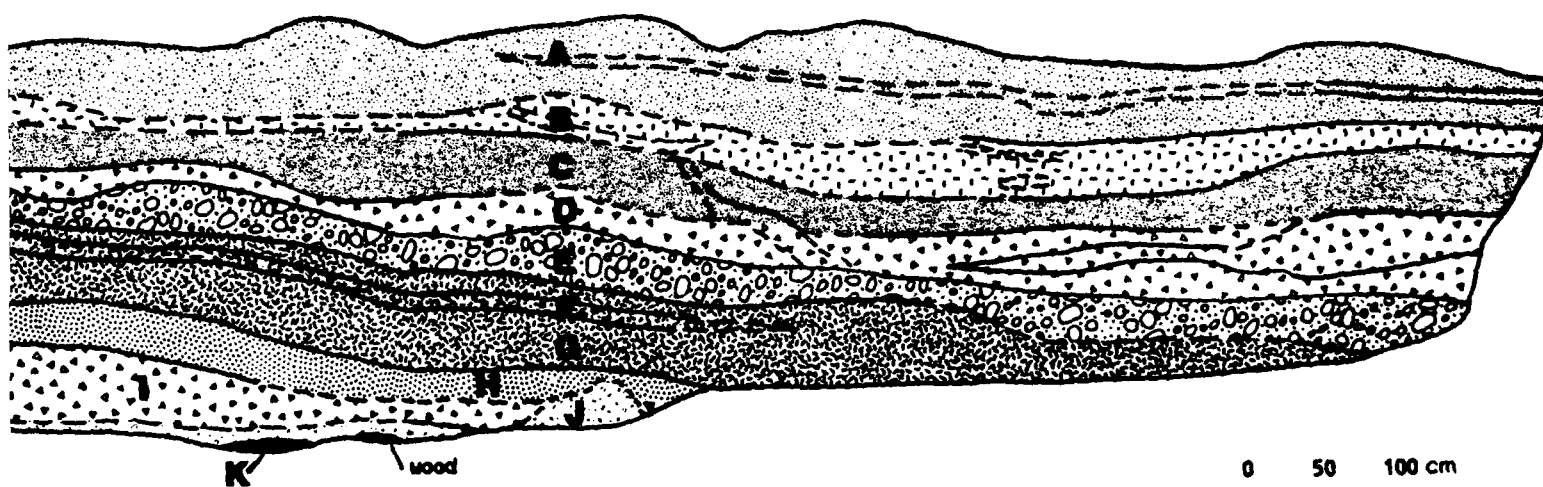


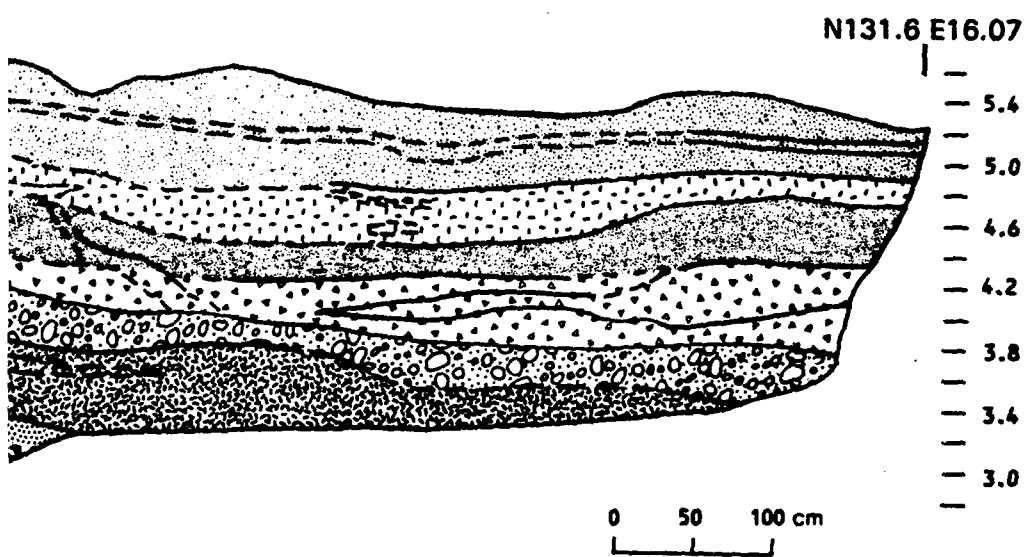
Figure 17. Profile of the north w

N131.6



Profile of the north wall of Trench 3.

2



Trench 3.

3

Table 32. Ceramics from Trench 3, 16SC61.

	T3 224-234 3.11-3.01	Total
Pearlware	1	1
Total	1	1

Table 33. Glass from Trench 3, 16SC61.

	T3L4 100 4.45
Lt. green glass	2
Green coke bottle neck	1

Table 34. Metal from Trench 3, 16SC61.

	T3L8 110 4.35
Steel trap	1

derived from a similar elevation as the mixed material from Excavation Unit 2 (above).

The density of brick was greatly increased in the western portion of the trench at relative elevations of approximately 3.45 to 3.11 m NGVD (200-234 cm below surface). A portion of the trench in this area was expanded in order to allow for shovel shaving by hand. The quantity and configuration of brick suggested that a feature might be present.

The area that was shovel-shaved measured approximately 1 x 1 m, and was located in the NW corner of the trench. Soil removed from this area was wet-screened through 1/4-inch mesh. Shovel-shaving of the first 10 cm (3.11 to 3.01 m NGVD) revealed that the bricks did not represent a feature, but instead represented rubble. The only diagnostic artifact recovered consisted of a single sherd of pearlware. The only other material recovered was brick and *Rangia*. The second 10 cm level (3.01 to 2.91 m NGVD) which was shovel-shaved was sterile with the exception of a few very small brick fragments. Based on the single sherd of pearlware and the relative elevation which is comparable to the antebellum component in Trench 1, it appears that this component is again expressed in the western part of Trench 3. Once again, the stratum (Stratum J in this trench) which yielded the artifacts was a 10YR 3/1 (very dark gray) clay.

Trench 4

This trench was located approximately 50 m N of Trench 3. Grid coordinates and elevation are shown in Table 15. The trench was approximately 8 m long, and it was excavated to a depth of approximately 2.5 to 3 m below surface (3.01 to 2.511 m NGVD).

Appendix II presents a summary of observations made during the excavation. The summary shows that in the easternmost portion of the trench, at a relative elevation of 4.01 m NGVD and beneath 1.5 m of alluvium was a peanut butter jar label. This is further evidence of the rapid rate of deposition which was discussed in relation to Trenches 2 and 3 (above).

Only metal, *Rangia*, oyster shell, brick, and mortar were recovered from Trench 4 (Tables 35 and 36). The amount of gravel present was sharply reduced from the amount seen in other trenches. Only one nodule was observed, and it came from 3.88 m NGVD (163 cm below surface). All of the 14 nails recovered derived from relative elevations of approximately 3.8 m NGVD. Ten of these nails were square and four were unidentifiable. Appendix II shows that the deepest artifact recovered in Trench 4 was a piece of unidentifiable metal at 3.71 m NGVD.

This is a higher elevation than was the antebellum stratum seen in Trench 1. However, it is somewhat lower (ca. 50 cm) than the elevation of the Mazda headlight in Trench 2. The only diagnostic artifacts collected from Trench 4 were the ten square cut nails. These, in light of the fact that four additional nails were unidentifiable, suggest but do not definitely demonstrate that this level (ca. 3.8 m NGVD) represents nineteenth-century deposition. In addition, the higher elevation of the artifacts in Trench 4 relative to the antebellum artifacts in Trench 1 suggests that the former post-date the antebellum period.

Figure 18 is a profile of an 8 m length of Trench 4. Strata C through F exhibit a slope at the eastern end which, as was the case in earlier trenches, suggests infilling of the western side of the borrow pit. The eastern portions of the strata are approximately 40 cm lower here than the western portions. The peanut butter label was recovered from this eastern portion of the trench, probably from Stratum E or F. As was the case for earlier trenches, this is evidence for rapid

Table 35. Metal from Trench 4, 16SC61.

	T4L3	T4L3	T4L3	T4L3	T4L4	T4L4	TOTAL
	163	163-168	168-172	163-167	167-169		
	3.88	3.88-3.83	3.83-3.79	3.88-3.84	3.84-3.82		
Square nail	1	3	3	2	1		10
Unid. nail		2			2		4
TOTAL	1	5	3	2	3		14

Table 36. Miscellaneous Material from Trench 4, 16SC61.

	T4L3
	163
	3.88
Bone	1
(wt. in grams)	0.6
Gravel	
(wt. in grams)	8.3

Key to Figure 18

- A 10YR 5/3 (brown) silt (with root disturbance)
- B 10YR 3/2 (very dark grayish brown) clayey silt
- C 10YR 3/2 (very dark grayish brown) clay
- D 10YR 4/3 (brown/dark brown) fine sandy silt
- E 10YR 3/2 (very dark grayish brown) clay
- F 10YR 3/3 (dark brown) clayey silt
- G 10YR 3/3 (dark brown) clay
- H 10YR 3/2 (very dark grayish brown) silty clay (with organic material)
- I 10YR 3/3 (dark brown) clay
- J 10YR 3/3 (dark brown) silty clay
- K 10YR 4/1 (dark gray) silty clay

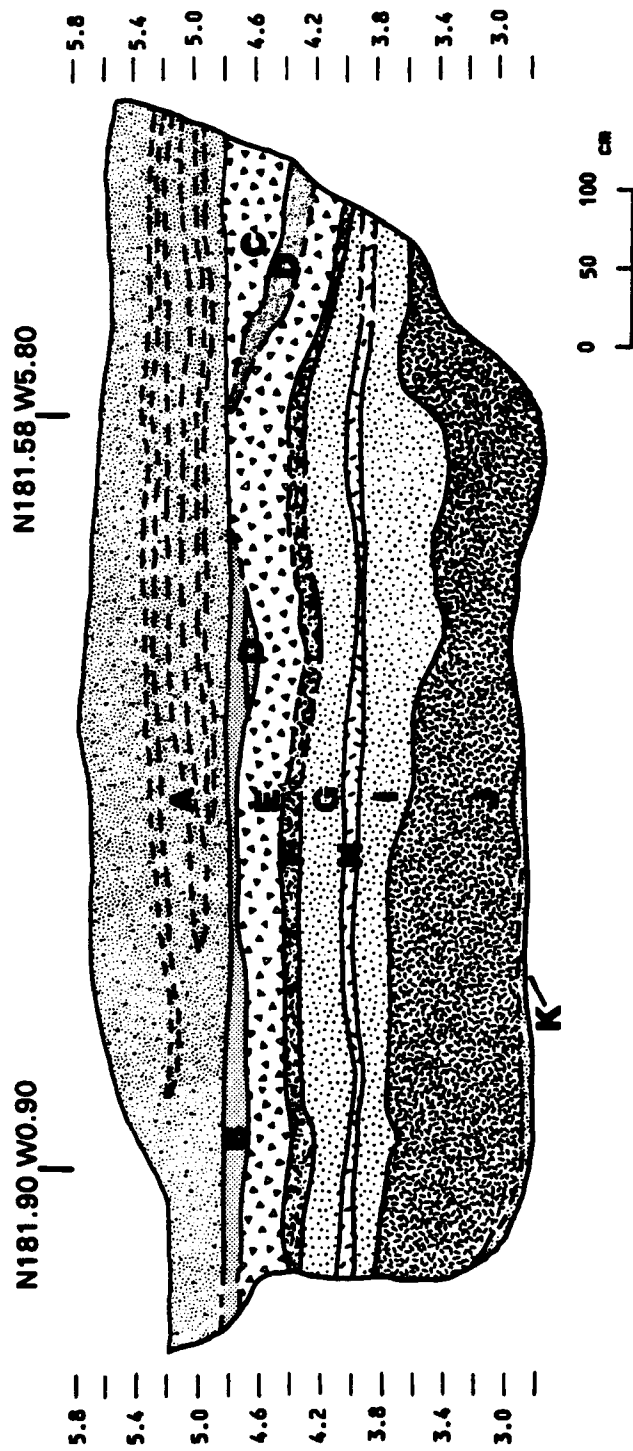


Figure 18. Profile of the north wall of Trench 4.

deposition. The square nails were recovered from the central and western portions of the trench which do not appear to have been disturbed by the borrow pit. They probably derive from either Stratum I or J.

Trench 5

Trench 5 was located approximately 50 m north of Trench 4 (Table 15, Figure 14). It was excavated to an approximate depth of 2.5 m below surface (ca. 2.5 m NGVD). This was the depth of water table, and the depth at which walls tended to become very unstable. In fact, Figure 19 shows that the lower portions of the trench were not profiled. This was because the walls did in fact collapse before a complete profile could be drawn.

The north wall profile (Figure 19) shows that between 4.4 and 4.0 m NGVD a "dense *Rangia* shell lens" was encountered. It also contained oyster shell, gravel, and brick fragments. The lens was very dense and compacted, so much so that it was difficult for the backhoe to cut through. The profile (Figure 19) shows that the lens was not present in the western part of the trench, and that its thickness increased dramatically from west to east. That configuration, its location adjacent to the river, and the degree of compaction all indicate that this lens represents a former road. The elevation of the base of this feature is only about 20 cm higher than the elevation of the nails in Trench 4, suggesting rough contemporaneity. In some of the other trenches, gravel was recovered at slightly lower relative elevations. The relationship of the gravel to this feature is uncertain. It is interesting, however, that large amounts of gravel occurred in Trench 2 at comparable relative elevations. Nevertheless, the relationship between that gravel and this lens is unclear because of the degree of disturbance in Trench 2.

Key to Figure 19

- A 10YR 3/3 (dark brown) clay
- B 10YR 3/1 (very dark gray) clay
- C 10YR 3/3 (dark brown) fine sandy silt

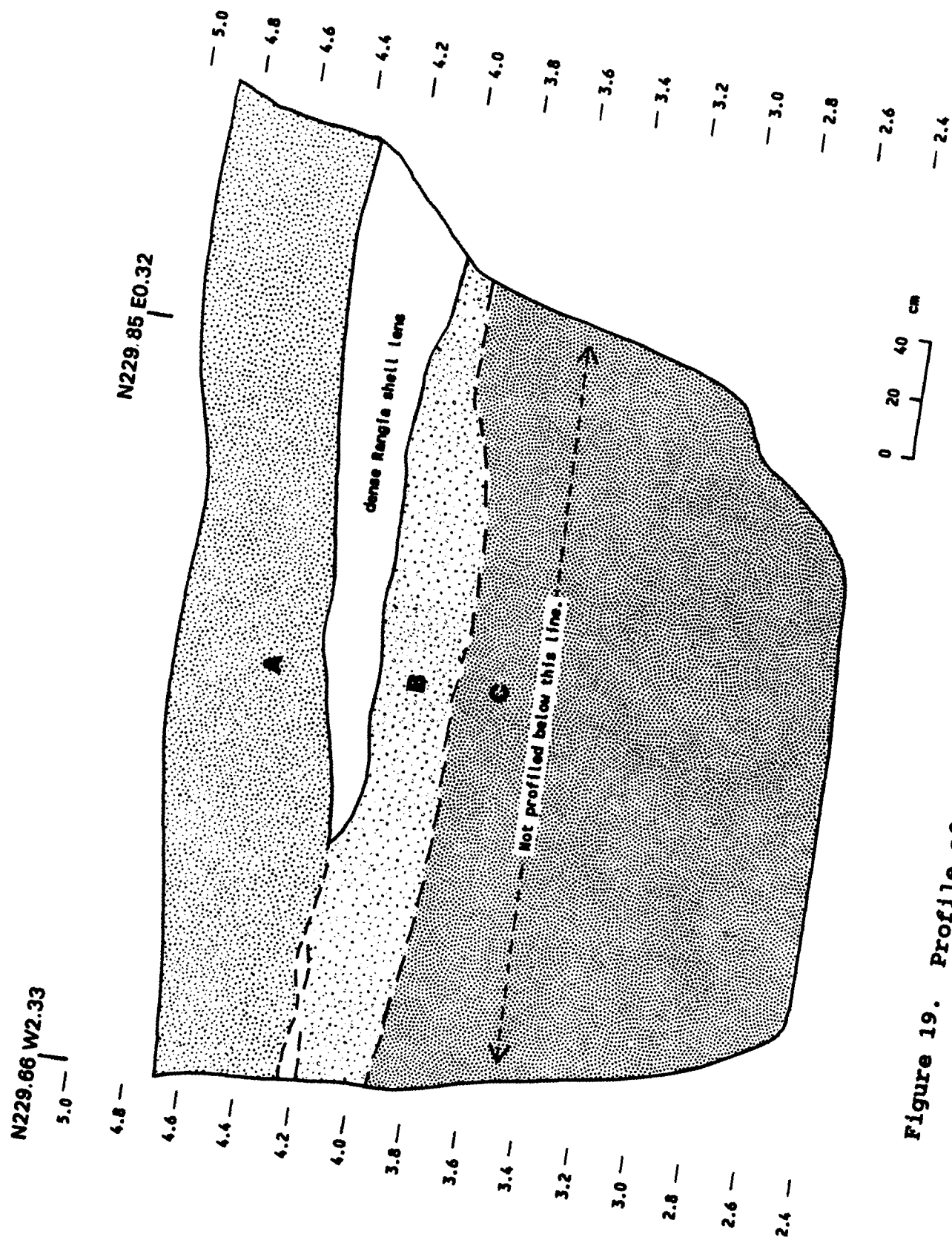


Figure 19. Profile of the north wall of Trench 5.

Trench 6

This backhoe trench was located approximately 50 m south of Trench 1 (Table 15, Figure 14). It was excavated to an approximate depth of 2.5 m below surface. Figure 20 shows an 8.2 m long profile of part of the north wall. The entire trench measured approximately 12.5 m in length.

Strata B through L slope dramatically from west to east. The strata at the eastern end of the profile are approximately 1 to 1.5 m lower than at the western end. It is likely that the slope is due to alluvial deposition within the western portion of the borrow pond as has been discussed for Trenches 2, 3, and 4 (above).

Appendix II shows that only shell and modern artifacts (including a liquor bottle neck with a threaded closure) were recovered in all but the westernmost portions of the trench. It was in the westernmost portion of the trench that historic artifacts began to occur at relative elevations of approximately 3.7 to 3.0 m NGVD. During profiling of the trench, it was apparent that most of these artifacts had derived from Stratum M, a 10YR 3/2 (very dark grayish brown) clay. Tables 37, 38, 39, 40, 41, and 42 summarize the artifacts recovered from Trench 6.

Thirteen ceramic sherds representing a minimum of five vessels were recovered from the trench. A mean ceramic date of 1827.46 (n=13) was calculated for the collection, which consisted of creamware, pearlware, whiteware, and classic ironstone. Identifiable nails were exclusively square cut. The only other chronologically diagnostic artifact recovered was an Indian Head penny with an illegible date. Unfortunately, this was found in the backdirt and thus is unprovenanced.

One additional "Length" was excavated with the backhoe. Overburden atop the culture-bearing stratum was removed and the trench was expanded at that depth to allow hand excavation. Subsequently, Excavation Unit 1 was placed here.

Key to Figure 20

- A 10YR 4/3 (brown/dark brown) silt
- B 10YR 3/3 (dark brown) clay (with cultural material)
- C 10YR 3/3 (dark brown) clayey silt (with cultural material)
- D 10YR 3/2 (very dark grayish brown) clay (with vertical bands)
- E 10YR 3/3 (dark brown) fine sandy silt
- F 10YR 3/2 (very dark grayish brown) clay
- G 10YR 3/3 (dark brown) fine sandy silt
- H 10YR 3/3 (dark brown) clay
- I 10YR 3/2 (very dark grayish brown) silty clay
- J 10YR 3/2 (very dark grayish brown) clay
- K 10YR 3/2 (very dark grayish brown) clayey silt
- L 10YR 3/2 (very dark grayish brown) clay
- M 10YR 3/2 (very dark grayish brown) clay (with cultural material)
- N 10YR 3/3 (dark brown) silt

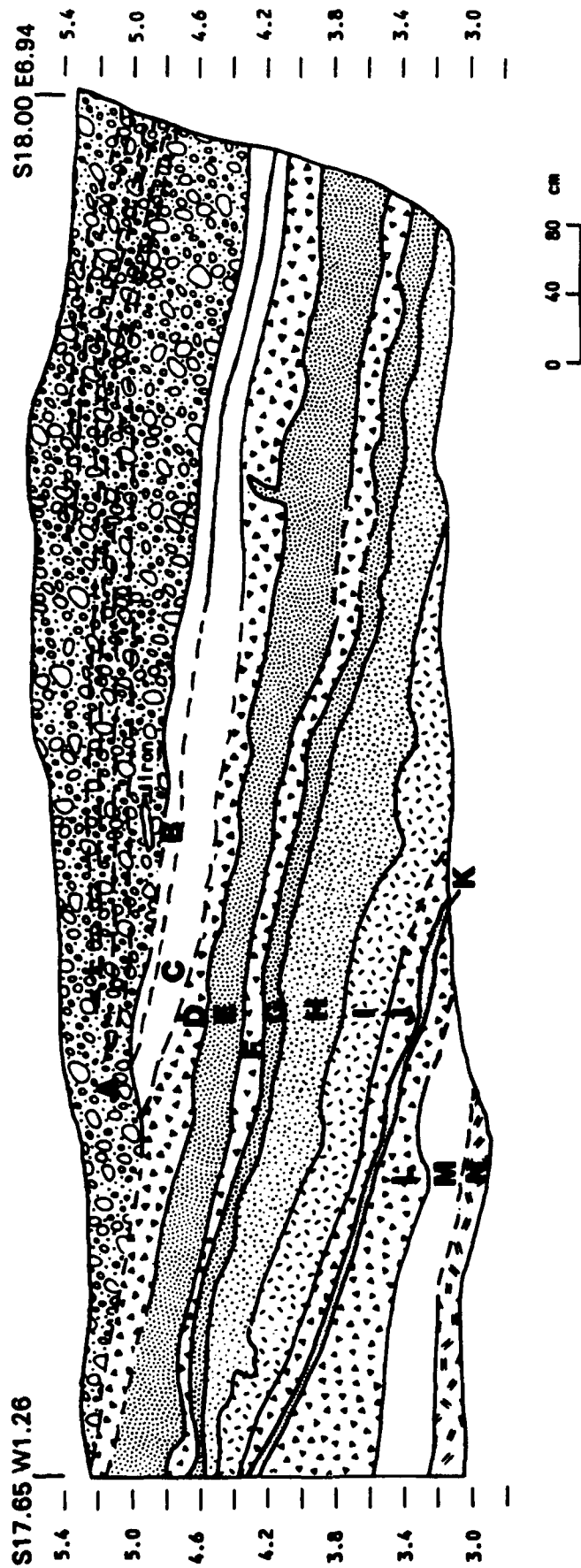


Figure 20. Profile of the north wall of Trench 6.

Table 37. Ceramics from Trench 6, 16SC61.

	T6L5	T6L5	T6L5	T6L5	T6L5	T6L5	T6L5
	180-183	189-191	191-197	197-202	213-215	224-232	
	3.68-3.65	3.59-3.57	3.57-3.51	3.51-3.46	3.35-3.33	3.24-3.16	
Creamware							
Pearlware					1		1
Annular pearlware			1				
Finger-painted pearlware							
Blue transfer- printed pearlware							
Pearlware-glazed		1					
white-colored earthenware					1		1
Whiteware							
Polychrome hand- painted whiteware					1		
Blue transfer- printed whiteware	1						
Classic ironstone	1			1			
TOTAL	2	1	1	1	3		2

Table 37, continued.

	T6L5 233-245 3.15-3.03	T6L5 unprov	TOTAL
Creamware		1	1
Pearlware			2
Annular pearlware			1
Finger-painted pearlware		1	1
Blue transfer- printed pearlware	1		2
Pearlware-glazed white-colored earthenware			1
Whiteware			1
Polychrome hand- painted whiteware			1
Blue transfer- printed whiteware			1
Classic ironstone			2
TOTAL	1	2	13

Table 38. Minimum Number of Vessels from Trench 6,
16SC61.

	Plate	Bowl	?	TOTAL
Creamware		1		1
Blue transfer- printed whiteware			1	1
Blue transfer- printed pearlware	1	1		2
Pearlware-glazed white-colored earthenware	1			1
TOTAL	2	2	1	5

Table 39. Glass from Trench 6, 16SC61.

	T6L3	T6L5 191-197 3.57-3.51	T6L5 197-202 3.51-3.46	T6L5 213-215 3.35-3.33	T6L5 unprov	TOTAL
Brown glass		1				1
Clear screw top liquor bottle	1		1	2	1	4
Olive glass						
TOTAL	1	1	1	2	1	6

Table 40. Metal from Trench 6, 16SC61.

	T6L5	T6L5	T6L5	T6L5	T6L5	T6L5	TOTAL
	189-191	197-202	202-210	210-213	213-215		
	3.59-3.57	3.51-3.46	3.46-3.38	3.38-3.35	3.35-3.33		
Square nail	1		1	3	1		6
Unid. nail				1			1
Machine part		1					1
Metal disc with hole in center				1			1
Unid. metal	1			1			2
(wt. in grams)	3.2			4.2			7.4
TOTAL	2	1	1	6	1		11

Table 41. Personal Items from Trench 6, 16SC61.

	T6L5 unprov
Indian head penny (date illegible)	1

Table 42. Miscellaneous Items from Trench 6, 16SC61.

	T6L5 189-191 3.59-3.57	T6L5 191-197 3.57-3.51	T6L5 213-215 3.35-3.33	TOTAL
Brick (wt. in grams)	53.2	10.3		63.5
Gravel (wt. in grams)			7.9	7.9

Excavation Unit 1 (within Trench 6)

This unit was excavated by hand within Trench 6. It measured 1.3 x 2.0 m. A pump was used in order to obtain water from the Mississippi River. This allowed all of the soil to be water-screened through 1/4-inch mesh. The unit was excavated in 5 cm levels to determine whether artifacts were in fact stratified chronologically. Tables 43, 44, 45, 46, 47, and 48 summarize the artifacts recovered from the unit.

Level 1 was 0 - 5 cm (3.72 - 3.67 m NGVD). Soil within the level was characterized as a very wet clay silt. No ceramics or glass were recovered from this level, although brick, gravel, *Rangia*, and wood were recovered.

Soil in Level 2 was the same as that in Level 1. The level was excavated from 5 - 10 cm (3.67 - 3.62 m NGVD). No ceramics or glass were recovered from this level, but once again, gravel, *Rangia*, and wood were recovered.

At the bottom of Level 2, a change in soil color was observed. Soil became a 10YR 3/2 (very dark grayish brown) or 10YR 3/1 (very dark gray) clay similar to that which yielded historic artifacts in Trenches 1 and 3. Level 3 was excavated from 10 - 15 cm (3.62 - 3.57 m NGVD). The amount of gravel, and to a lesser extent *Rangia*, increased dramatically. Nevertheless, only very small amounts of brick, glass (n=3), and ceramics (n=2) were recovered. Two of the glass sherds were amethyst glass which probably post-date ca. 1880. In contrast, the ceramics consisted of creamware and whiteware which date to the antebellum period or, in the case of the creamware, as early as the last two decades of the eighteenth century. The grayish soil containing artifacts sloped downward towards the west within this level.

Level 4 consisted of soil from 15 - 20 cm (3.57 - 3.52 m NGVD). Once again, greatly increased amounts of gravel were obtained. However, brick weight also increased which had not been the case for Level 3. Also, oyster shell was identified for the first time in this level. This level yielded the largest number of ceramic (n=34) and glass (n=41) sherds. All of these were consistent with an antebellum date with the exception of three sherds of amethyst glass and two sherds of porcelaneous stoneware. Also recovered were a

Table 43. Ceramics from Excavation Unit 1, 16SC61.

	EU1 Lv13	EU1 Lv14	EU1 Lv15	EU1 Lv16	TOTAL
Creamware	1	5	2	1	9
Annular creamware				1	1
Pearlware		8	11	3	22
Polychrome hand-painted pearlware				1	1
Blue-shell edged pearlware		4	1	1	6
Annular pearlware		2		1	3
Finger-painted pearlware			1		1
Blue transfer-printed pearlware		2		5	7
Pearlware-glazed white-colored earthenware		1	1		2
Whiteware	1	1	4	3	9
Annular whiteware		1			1
Blue edged whiteware		1			1
Blue transfer-printed whiteware		1			1
Sponged whiteware			1		1
Classic ironstone		4	2		6
Porcelaneous stoneware		2			2
Pink Slipped and Lead-Glazed Redware		1			1
Grey salt-glazed stoneware		1			1

Table 43, continued.

	EU1 Lv13	EU1 Lv14	EU1 Lv15	EU1 Lv16	TOTAL
Grey salt-glazed stoneware, cobalt hand-painting				1	1
Grey salt-glazed stoneware, albany- slipped interior				1	1
Stoneware bottle			1	1	1
Rockinghamware					1
TOTAL	2	34	24	19	79

Table 44. Minimum Number of Vessels, Excavation Unit 1.

	Plate	Lid	Bowl	Cup	?	Total
Annular creamware					1	1
Polychrome hand-painted pearlware					1	1
Blue shell-edged pearlware	1					1
Annular pearlware		1	1			2
Pearlware-glazed white-colored earthenware			1			1
Whiteware	1					1
Annular whiteware			1			1
Blue edged whiteware	1					1
Blue transfer-printed whiteware	1					1
Sponged whiteware	1					1
Classic ironstone	1			1		2
Porcelaneous stoneware					1	1
Pink Slipped and Lead-Glazed Redware			1			1
Gray salt-glazed stoneware					1	1
Stoneware bottle					1	1
TOTAL	6	1	4	1	5	17

Table 45. Glass from Excavation Unit 1, 16GL61.

	EU1 Lv13	EU1 Lv14	EU1 Lv15	EU1 Lv16	TOTAL
Amethyst glass	2	3	3	1	9
Amethyst decorated drinking glass stem				1	1
Brown glass	1	27	3		31
Brown base		2			2
Clear glass		3	4	5	12
Lt. green glass		4	4	2	10
Olive glass			5	2	7
Olive glass base, kickup				2	2
Pane glass		2	3	2	7
Yellow glass				1	1
TOTAL	3	41	22	16	82

Table 46. Metal from Excavation Unit 1, 16SC61.

	EU1 Lvl 4	EU1 Lvl 5	EU1 Lvl 6	EU1 Lvl 7	TOTAL
Wrought nail		3			3
Square nail	12	11	2	4	29
Unid. nail	6	2	2	1	11
Staple	3		1		4
Metal hook			1		1
Metal disc			1		1
Strap iron			1		1
Barbed wire			2		2
Unid. wire			1		1
(wt. in grams)			2.9		
Unid. metal	26	16	8		50
(wt. in grams)	14.3	6.4	4.6		
TOTAL	47	32	19	5	103

Table 47. Personal and Clothing Items from Excavation Unit 1, 16SC61.

	EU1 Lvl 4	EU1 Lvl 5	EU1 Lvl 6	EU1 Lvl 7	Total
Bone button		1			1
Bone button fragment		1	1		2
Kaolin pipestem			1	1	2
Pewter swan lid	1				1
Yellow bead	1				1
Total	2	2	2	1	7

Table 48. Miscellaneous Materials from Excavation Unit 1, 16SC61.

	EU1 Lv11	EU1 Lv12	EU1 Lv13	EU1 Lv14	EU1 Lv15
Bone (wt. in grams)					26 43.2
Brick (wt. in grams)	0.7		7.9	523.3	462.2
Cinder (wt. in grams)				12.4	5.8
Charcoal (wt. in grams)					
Coal (wt. in grams)				8.3	11.9
Gravel (wt. in grams)	37.8	5.8	2856.9	8196.7	1942.3
Mortar (wt. in grams)				4.2	19.3
Oyster shell (wt. in grams)				149.7	25.4
Peach pits (wt. in grams)				2 0.4	
Rangia shell (wt. in grams)	88	5.7	57.5	70.6	14.6
Slag (wt. in grams)				2.1	3.7
Slate (wt. in grams)					
Wood (wt. in grams)	2.3	0.4	0.7		0.3
Fossil (wt. in grams)				1.5	1.4

Table 48, continued.

	EU1 Lv16	EU1 Lv17	EU1 Lv18	EU1 Lv110	TOTAL
Bone (wt. in grams)	19	4		1	50
Brick (wt. in grams)	30.6	4.2		1.1	79.1
Cinder (wt. in grams)	254.6	81.2	4.6	1.3	1335.8
Charcoal (wt. in grams)	3.8	1.7			23.7
Coal (wt. in grams)	0.5			0.2	0.7
Gravel (wt. in grams)	2.4				22.6
Mortar (wt. in grams)	806.4	137.1	7.1		13990.1
Oyster shell (wt. in grams)	162.2				185.7
Peach pits (wt. in grams)	44.1	1.9		2	221.1
Rangia shell (wt. in grams)				0.4	
Slag (wt. in grams)	4.5	5.8	0.4	0.2	247.3
Slate (wt. in grams)	1.2				7
Wood (wt. in grams)	1.6				1.6
Fossil (wt. in grams)					3.7
					2.9

pewter swan lid (Figure 21), a yellow bead, and miscellaneous metal artifacts.

Level 5 was excavated from 20 - 25 cm (3.52 - 3.47 m NGVD). A soil change, consisting of increased silt content, was noted. In one portion of the unit near the eastern end, a few more brick fragments than usual were noted. These were located at the base of the level. The overall quantity of brick was similar to that in Level 4, while the quantity of gravel was somewhat reduced. Some of this gravel derived from a concentration within the westernmost 30 cm of the level. The number of ceramic and glass sherds were somewhat reduced relative to Level 4. These were once again consistent with an antebellum or early postbellum date with the exception of three sherds of amethyst glass. A bone button and a bone button fragment were also recovered, as were nails and miscellaneous metal artifacts.

Level 6 was excavated from 25 - 30 cm (3.47 - 3.42 m NGVD). A concentration of metal was observed in the NE corner of the unit at the base of the level. Artifact density seemed to be somewhat greater in the eastern portion of the unit. There had been a somewhat greater density of brick fragments in the eastern portion of Level 5 (above). In general, soil in the level exhibited an increased clay content and appeared to be slightly grayer in color. Artifact density was reduced relative to Levels 4 and 5 but was greater than the other levels excavated. Ceramic and glass sherds were similar to those recovered in Levels 4 and 5 and most were probably manufactured prior to the Civil War. One artifact of note was a decorated drinking glass stem of amethyst glass. This particular item probably dates to 1880-1920. Personal items consisted of a bone button fragment and a kaolin pipestem. Once again, nails and various other metal items were recovered.

Level 7 was excavated from 30 - 35 cm (3.42 - 3.37 m NGVD). The soil seemed somewhat drier than that in Level 6. The amounts of miscellaneous cultural materials were greatly reduced, and no ceramics or glass were recovered. However, one kaolin pipestem and five nails were present.

Level 8 was excavated from 35 - 40 cm (3.37 - 3.32 m NGVD). Soil consistency and color remained the same. The level was virtually sterile with the exception of a few very small brick fragments, small pieces of gravel, and a few shell fragments. Most of these were from the

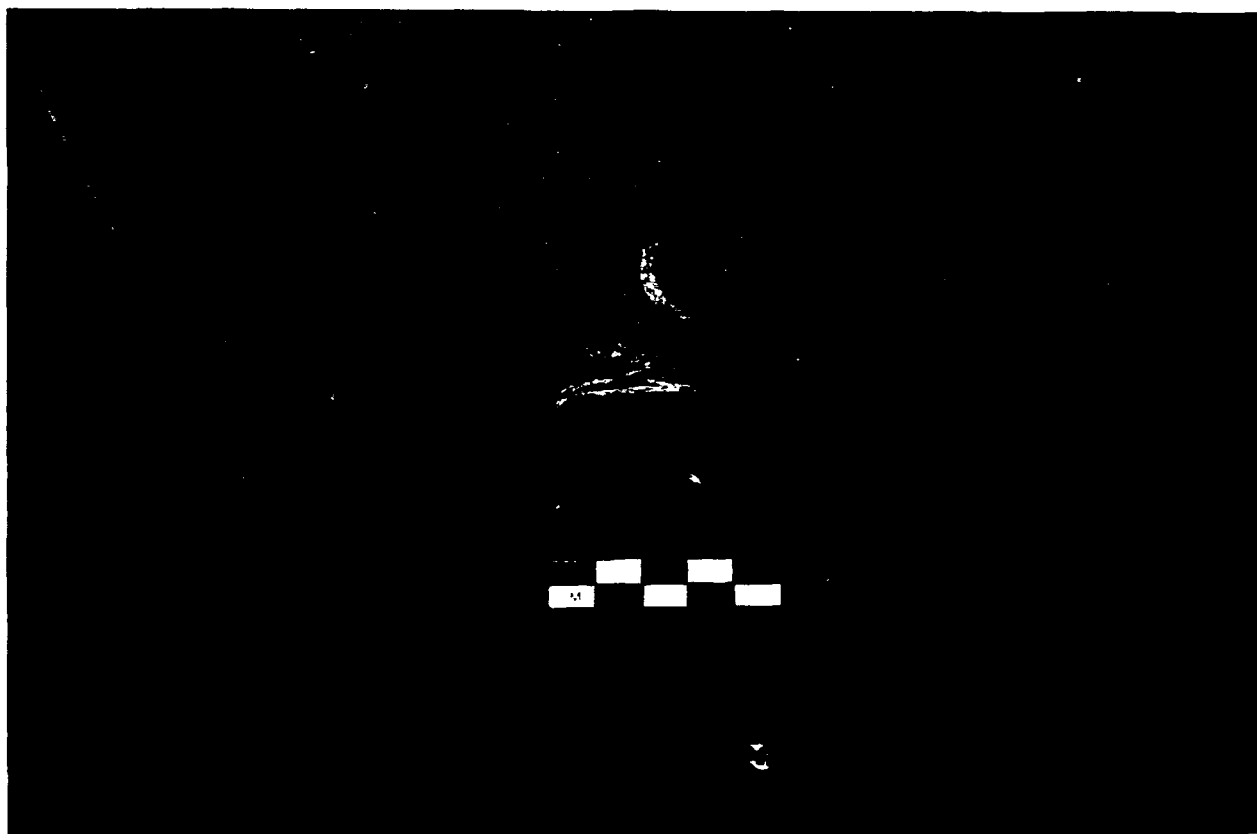


Figure 21. Pewter swan lid fragment from Excavation Unit 1.

western portion of the unit. This is presumed to be the portion of the unit that would have been adjacent to a former road. This is unlike the situation in Levels 5 and 6 where artifacts appeared to be in the eastern portion of the unit.

Level 9 was excavated from 40 - 50 cm (3.32 -3.22 m NGVD). Silt content increased in the soil in this level. The level was devoid of cultural materials. Level 10 was excavated from 50 - 60 cm (3.32 - 3.22 m NGVD). Only one muskrat mandible, one brick fragment, one shell fragment, and very small amounts of charcoal were recovered. The soil in this level appeared to be similar to the sterile subsoil observed at 16JE141, which is located about one mile downriver from 16SC61 and discussed by Shannon et al. (1988:367-375). Excavation was terminated when this level was completed because artifacts were not being recovered from the unit and because during backhoe excavation no artifacts had been recovered from soils at greater depths than this.

A total of 79 sherds representing a minimum of 17 vessels were recovered from Excavation Unit 1. A mean ceramic date of 1815.61 (n=62) was calculated for the collection. When the ceramics for the trench proper and Excavation Unit 1 are combined, the resulting date is 1817.67 (n=75).

Interestingly, both wrought (n=3) as well as square cut (n=29) nails were identified among the total of 32 nails collected. These, along with the absence of wire nails, suggest an antebellum/early-postbellum date. Again, the only other chronologically diagnostic material recovered from the unit was the amethyst glass recovered from Levels 3 through 6. Thus, although ceramics as well as the nails strongly indicated antebellum to early-postbellum deposition, both the amethyst glass and the porcelaneous stoneware indicate that deposition continued at least until the last two decades of the nineteenth century.

As noted above, Excavation Unit 1 was excavated in 5 cm levels in order to determine if deposits were stratified. Therefore, frequencies and relative

frequencies of creamware, pearlware, whiteware, and ironstone were calculated for Levels 4, 5, and 6:

	Creamware		Pearlware		Whiteware		Ironstone	
	#	%	#	%	#	%	#	%
4	5	16.7	16	53.3	5	16.7	4	13.3
5	2	8.7	13	56.5	6	26.1	2	8.7
6	2	15.4	8	61.5	3	23.1	0	0

Pearlware increases with depth while ironstone is entirely absent in the lowest level. Whiteware increases in Level 5 then decreases again in Level 6. This suggests that the deposits at 16SC61 are stratified. However, the small sample sizes prohibit any definitive statement. Then too, the presence of amethyst glass within Level 6 indicates that the levels are not completely temporally "pure."

Figure 22 is a profile of the north wall of the unit. It shows that three strata which were observed. Artifact density was highest in Stratum B, the 10YR 3/2 (very dark grayish brown) clay.

Key to Figure 22

- A 10YR 4/3 (brown/dark brown) clayey silt
- B 10YR 3/2 (very dark grayish brown) clay (with iron oxide mottling)
- C 10YR 3.3 (dark brown) very fine sandy silt

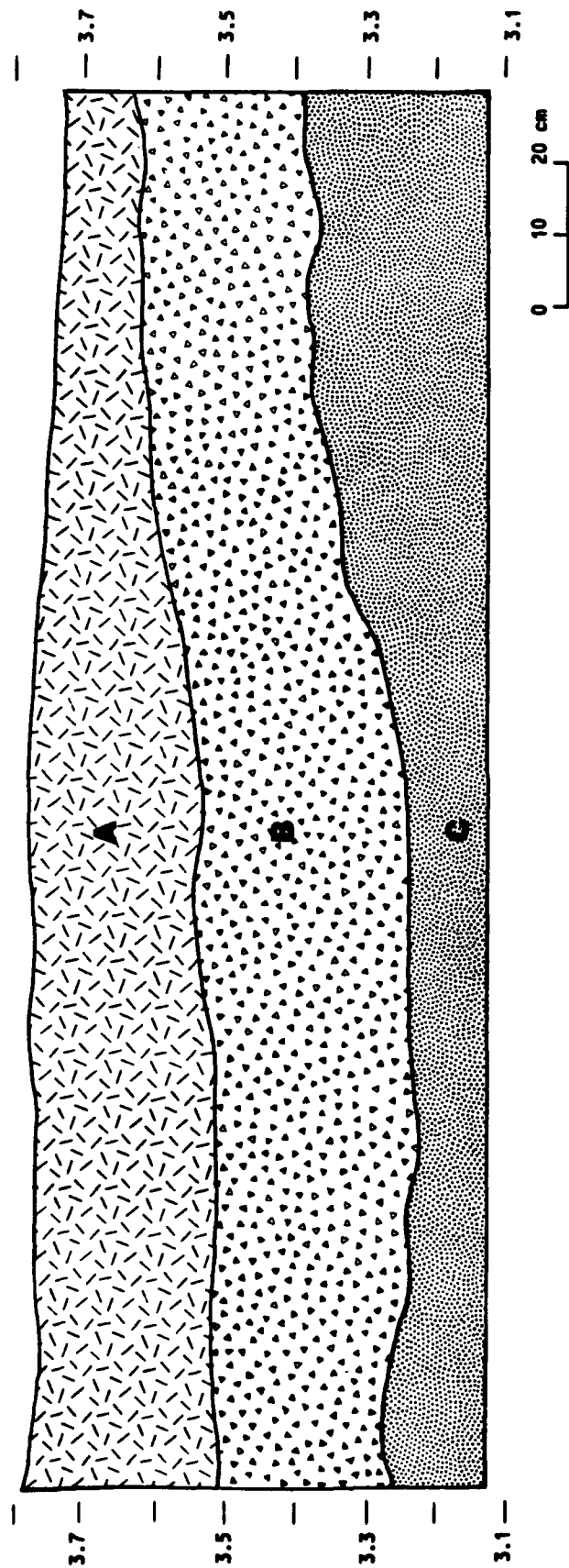


Figure 22. Profile of the north wall of Excavation Unit 1.

Trench 7

Trench 7 was located approximately 50 m south of Trench 6 (Figure 14, Table 15). Initially, the trench (consisting of Lengths 1 and 2) was excavated to a depth of 205 to 230 cm below surface (3.22 to 2.97 m NGVD). Relatively large amounts of brick were encountered at these depths. After careful examination of the trench floor, it was clear that no features were present. Subsequently, the entire trench was excavated to a depth of 260 to 285 cm below surface (2.67 - 2.42 m NGVD). The length of the trench was approximately 4.5 m.

Tables 49, 50, 51, 52, and 53 summarize the artifacts that were recovered. All of these occurred at relative elevations between 3.58 and 2.82 m NGVD. Ten ceramic sherds representing a minimum of three vessels were collected from the trench. A mean ceramic date of 1810.30 (n=10) was calculated for the collection. Although the sample size is small, it is worth noting the comparability to the dates for Trench 1 (1813.26, n=19) and for Excavation Unit 1 (1815.61, n=62). With the exception of 4 square cut nails, none of the other artifacts provided chronological information.

Figure 23 is a profile of the trench. It shows the two areas of the north trench wall where brick and other artifacts were observed. The uppermost area was at a relative elevation of approximately 3.4 to 3.7 m NGVD within a 10YR 3/3 (dark brown) clay. The lower of the two areas was at approximately 2.9 to 3.3 m NGVD within a 10YR 3/2 (very dark grayish brown) clay.

Once again, the strata slope from west to east. The lowest strata (Strata O and P) exhibit the least degree of slope. The strata above these are approximately 1 m lower at the eastern end of the profile as compared to the western end. The slope, then, is quite steep because the trench profile is only 4.4 m in length. Differences in elevations at the two ends of the trench for Strata N, O, and P, are considerably reduced, measuring only about .5 m for Strata N and O, and with no slope at all for P. This indicates that excavation of the borrow pond left these strata relatively undisturbed.

Table 49. Ceramics from Trench 7, 16SC61.

	T7L1 195-215 3.32-3.12	T7L1&2 230-245 2.97-2.82	T7L2 169-170 3.58-3.57	T7L2 182-186 3.45-3.41	T7L2 186-189 3.41-3.38	TOTAL
Creamware	3					3
Pearlware	1	1				2
Blue shell-edged pearlware			1	1		2
Finger-painted pearlware	1				1	1
Whiteware	1					1
Annular whiteware						1
TOTAL	6	1	1	1	1	10

**Table 50. Minimum Number of Vessels from Trench 7,
16SC61.**

	Plate	Bowl	TOTAL
Creamware	1		1
Annular whiteware		1	1
Blue shell-edged pearlware	1		1
TOTAL	2	1	3

Table 51. Glass from Trench 7, 16SC61.

	T7L1
	175
	352
Olive glass	1

Table 52. Metal from Trench 7, 16SC61.

	T7L1 175-179	T7L1&2 225-230	TT7L2 189-192	T7L2 192-196	TOTAL
Square nail	2	1		1	4
Can fragment			1		1
TOTAL	2	1	1	1	5

Table 53. Miscellaneous Items from Trench 7, 16SC61.

	T7L1 175-179 3.52-3.48	T7L1 195-215 3.32-3.12	T7L1&2 225-230 3.02-2.97	TOTAL
Brick (wt. in grams)	6.5		1422.4	1428.9
Plaster (wt. in grams)		9.4		9.4
Rangia shell (wt. in grams)			5.3	5.3

Key to Figure 23

- A 10YR 4/3 (brown/dark brown) fine sandy silt (with root disturbance)
- B 10YR 3/2 (very dark grayish brown) silty clay (with charcoal inclusions)
- C 10YR 3/3 (dark brown) clay
- D 10YR 3/3 (dark brown) fine sandy silt
- E 10YR 3/2 (very dark grayish brown) clay
- F 10YR 3/3 (dark brown) fine sandy silt
- G 10YR 3/2 (very dark grayish brown) clay
- H 10YR 3/3 (dark brown) fine sandy silt
- I 10YR 3/3 (dark brown) clay
- J 10YR 3/3 (dark brown) silt (mottled)
- K 10YR 3/2 (very dark grayish brown) clay (mottled)
- L 10YR 3/3 (dark brown) silt (mottled)
- M 10YR 3/2 (very dark grayish brown) clay
- N 10YR 3/3 (dark brown) clay (with iron oxide inclusions)
- O 10YR 3/2 (very dark grayish brown) clay (with cultural material)
- P 10YR 3/3 (dark brown) clay (with iron oxide inclusions)

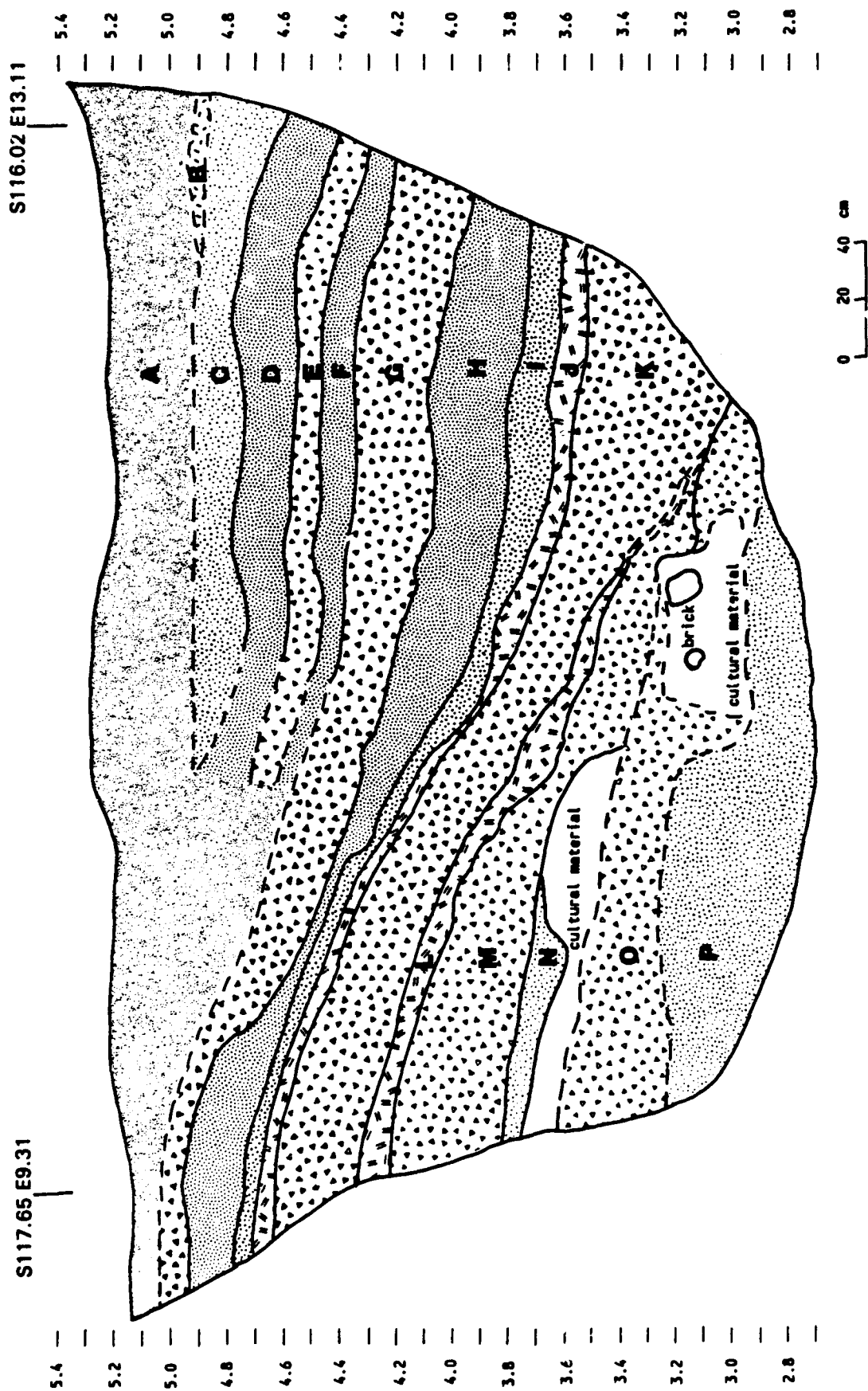


Figure 23. Profile of the north wall of Trench 7.

Trench 8

This trench was located approximately 50 m south of Trench 7 (Figure 14, Table 15). It was excavated to a depth of 2.3 m below surface (2.81 m NGVD). No artifacts were recovered. This trench, then, may be taken as the upriver boundary of the site.

Trenches 9, 10, 11, and 12

These four trenches were excavated between the eastern edge of the borrow pond and the western (riverside) toe of the levee (Figure 14). They were placed here to determine if cultural deposits observed on the western side of the pond continued on the eastern side. Each trench was 3 m in length and 60 cm in width. All were excavated to a depth of 200 cm below surface, which was 10 cm below water table.

No artifacts were recovered from Trenches 9 to 12, which indicates that the site boundary on the landward (east) side is the borrow pond. Strata observed during excavation are presented in Appendix II. The relative elevations of the floors of these trenches were:

Trench 9	2.831 m NGVD
Trench 10	3.127 m NGVD
Trench 11	3.477 m NGVD
Trench 12	2.347 m NGVD

CHAPTER 9

DISCUSSION AND SITE INTERPRETATION

Site Boundaries

As noted in Chapter 8, the archeological deposits at 16SC61 were impacted by the excavation of a borrow pond, probably in 1930. No evidence of preserved archeological deposits was encountered in Trenches 9, 10, 11, or 12, which were located between the borrow pond and the riverside toe of levee (Figure 14). Thus, the site extends east/west from the riverside edge of the borrow pond to the point where it is exposed in the graded bank, a distance of approximately 20 m.

Chapter 8 also stated that Trench 8 was devoid of cultural materials, and that no artifacts were recovered from Trench 5. However, culture-bearing strata were noted in both Trench 7 and Trench 4. Thus, Trenches 5 and 8 are located at or just outside of the limits of the cultural deposits at 16SC61. Trench 5 may be used as the northern site boundary, and Trench 8 may be used as the southern site boundary. This gives a total north/south extent of approximately 340 m. These boundaries were used to plot site extent on Figures 1 and 2.

The Aboriginal Component

Previous workers at the site recovered three aboriginal sherds from the surface. These were classified as Mississippi Plain var. *Pocahontas*, Fatherland Incised var. *Bayou Goula*, and Marksville Incised var. *unspecified*, and they were interpreted as evidence for a prehistoric component (Shannon et al. 1988:344). It should be noted that the first two types listed above also occur in protohistoric and even historic period contexts.

Four additional aboriginal sherds were collected from the surface of the site by Ms. Kleinhans of the NODCOE in 1991. These were examined by Dr. T.R. Kidder of Tulane University. He identified two of the sherds as Baytown Plain var. *unspecified*. One of these had a fine sandy paste, and the other exhibited similarities to var. *Reed*. Also collected was a rim sherd with "early Addis paste." It appears to derive from a large jar. It could date to the Coles Creek period or to a later period.

One sherd was identified by Dr. Kidder as Churupa Punctate var. *unspecified*. Had this sherd been recovered in the Tensas Basin, it would have been identified as Churupa Punctate var. *Watson* which, in that area, is associated with terminal Baytown period and Troyville occupations. Temper of this sherd consisted of coarse grog. Dr. Marco Giardino (personal communication to H.A. Franks, 1992) indicated that similar sherds were recovered from a late-protohistoric and/or historic period aboriginal component at the Sims Site in St. Charles Parish. Thus, it is likely that the Churupa Punctate sherd at 16SC61 is indicative of seventeenth- or eighteenth-century Native American activity. This appears to be the period suggested by the other aboriginal sherds at this site with the exception of one sherd identified as Marksville Incised by Shannon et al. (1988). It is possible that this sherd represents an example of Leland Incised that was misidentified, because the recovery of artifacts dated to the Marksville period is so unlikely at this locale. Leland Incised is somewhat similar to Marksville Incised, and it fits with a protohistoric or historic period occupation.

One of the goals of the investigations reported in this volume was to further explore the possibility of *in situ* materials representing aboriginal activity at 16SC61. For this reason, several of the backhoe trenches were excavated to depths of 2.5 to 3 m below surface (approximately 2.0 to 2.5 m NGVD). This depth was below that which yielded early-nineteenth-century materials. Soil from these depths was carefully examined, but no sherds or other artifacts were noted.

Based on the relatively deep backhoe excavations, it appears that an *in situ* aboriginal component is not present. The four sherds collected in 1991 were water-worn to varying degrees and were recovered from the beach. The condition of the sherds reported in 1988 is unknown. It seems likely, however, particularly in light of bankline loss over a one hundred year period (Figure 6), that the aboriginal component has been lost to erosion. Sherds are probably present at shallow depths along the edge of the river, and when river levels are low such sherds are washed onto the shore as a result of wave action generated by boats. This phenomenon has been observed at other sites in the region, including 16OR119 and 16OR125 (Mossa 1989:313-314). After visiting both of those sites and examining the aboriginal sherds from the latter, a geomorphologist wrote that:

Wave wash and water-level surges caused by ship traffic are processes responsible for local bank recession (Saucier 1963b) and reworking of subaqueous and subaerial sediments proximal to the river's edge. Cultural material in these deposits that are reworked by wave wash are typically found on pocket beaches or crenulations along the river edge. The water depths from which these materials are reworked are estimated to be less than twenty feet in depth.

The artifacts found in the project area are probably locally reworked because the materials are not severely worn by wave wash and abrasion, and would be if they were transported for an appreciable distance. Also, since much smaller geologic materials, such as beach sands and shell-detritus associated with buried beach ridges are only transported within two bend areas (Kolb and van Lopik 1958:26), it is likely that larger and heavier materials, including the sherds and other artifacts, are locally-derived from the project area and are not from appreciable distances upstream (Mossa 1989:313-314).

The Louisiana Division of Archeology site files indicate that during the survey that resulted in the discovery of 16SC61, several additional sites were reported which were adjacent to the Mississippi River and which yielded aboriginal sherds. These were 16JE141 (Orange Grove Plantation), 16SC55, 16SC56, 16SC60, 16SJB30, 16SJB31, and 16SJB37.

The three sites in St. John the Baptist Parish are situated along a 700 m stretch of the west bank of the river near River Mile 140. Sites 16SC55 and 16SC56 are located near River Mile 124. They are both situated on the west bank about 1000 m apart. Sites 16SC60 and 16SC61 are both situated on the west bank about 250 m apart, near River Mile 116.7. Finally, 16JE141 is situated on the west bank near River Mile 114 (Shannon et al. 1988:8-18).

Thus, these seven sites which yielded aboriginal ceramics are located on the west bank between River Mile 114 and River Mile 140, a distance of approximately 26 river miles. The classification of ceramics and a

projectile point recovered from the sites by Shannon et al. (1988) are summarized in Table 54.

The occurrence of an Evans projectile point beside the Mississippi River (at 16SC60) is somewhat unusual. However, Mr. John Polk (personal communication to Franks and Yakubik, 1989) recovered several lithic artifacts from the beach at 16JE141. Excavations conducted at the latter site since 1988 have yielded additional aboriginal artifacts which appear to indicate a protohistoric or early-historic period occupation (Yakubik and Franks, in prep). Most of the other artifacts collected from the sites under discussion here also suggest very late aboriginal activity.

Some documentary evidence is available concerning such activity. The vicinity of St. Charles Parish was occupied by the Quinipissa Indians at the beginning of the historic period. The Quinipissas were a Muskogean Indian tribe who figure in several of the narratives of La Salle's 1682 exploration of the Mississippi written by participants, particularly the 1684 memoir of Henri de Tonti. The Quinipissa are thought to have fired a volley of arrows at La Salle's party during their descent on the Mississippi River. La Salle began his ascent and again encountered the Quinipissas. During the ascent, his party camped on the east bank opposite the village where they had been attacked while descending. The site of the Quinipissa village has been identified as being located near present-day Hahnville (Swanton 1911:280).

During his 1686 search for La Salle, Tonti descended the Mississippi, but found no one at the Quinipissa landing. On returning upriver, Tonti came upon the chief of the Quinipissa. Tonti left a letter for the chief of the Quinipissas to give to La Salle if he was found (LA Indian Miscellany 1940:12).

In 1699 Jacques Le Moyne, Sieur de Iberville searched the area in vain for the Quinipissas, crossing from Lake Ponchartrain to the Mississippi along the portage at Ravine du Sueur. Unable to find the recently friendly Quinipissas, Iberville suspected that the reports of Tonti and others were mendacious. However, Iberville discovered Tonti's letter among the Bayougoulas upriver from the site of the Quinipissa village. In the years since Tonti's visit, the Quinipissa, reduced by disease, had joined with a related tribe called the Mugulasha, and then the

Table 54. Occurrences of Aboriginal Material Reported by Shannon et al. (1988).

Site	Provenience	Type
16JE141	Surface & subsurface to 20 cm	8 Addis Plain var. unspecified 3 Addis Plain var. Ratcliffe 20 Baytown Plain var. unspecified 1 Fatherland Incised var. unspecified 1 Mississippi Plain var. Pocahontas
16SC55	Surface (?)	1 Addis Plain var. Ratcliffe 2 Baytown Plain var. unspecified 7 Baytown Plain var. Troyville
16SC56	Surface	1 Bell Plain var. St. Catherine
16SC60	Surface	2 Baytown Plain var. unspecified 1 Evans projectile point
16SC61	Surface (?)	1 Mississippi Plain var. Pocahontas 1 Fatherland Incised var. Bayou Goula 1 Marksville Incised var. unspecified
16SJB30	Surface	2 Mississippi Plain var. Pocahontas
16SJB31	Surface	2 Addis Plain var. unspecified 1 Bell Plain var. St. Catherine
16SJB37	Surface	7 Addis Plain var. unspecified 1 Avoyelles Punctated var. Dupree 16 Baytown Plain var. unspecified 1 Fatherland Incised var. unspecified 2 Mississippi Plain var. Pocahontas 1 unclassified

Bayougoula. Iberville reported that in May 1700 the Bayougoula turned upon their fellow villagers and killed many of the Mugulasha/Quinipissa, ending the Quinipissa's separate identity as a tribe (Swanton 1911:280).

The Quinipissas were not the only tribe reported to be in the vicinity of the sites under discussion. A statement in 1739 by M. de Nouaille, an officer, reports that the Washa (or Ouacha), a migratory tribe, had moved into St. Charles Parish from Bayou Lafourche in the early-eighteenth century and had joined the Acolapissas, Bayougoulas, Houmas, and two other tribes at "Les Allemands" in the interior of St. Charles or St. John the Baptist Parish. The Washas were centered in the area of present-day Des Allemands until the mid-1700's. The Choctaws also had a village between Boutte and Paradis during the historic period (Yoes 1973:8). A recently reported map dated 1731 shows a Chawasha settlement at or in the vicinity of 16JE141. The Chawasha were a group reported by the French to have the same character as the Washa (Kniffen et al. 1987:55-56).

The sites reported by Shannon et al. (1988) as yielding aboriginal artifacts are in the area occupied by the Quinipissa, the Washa, and the Chawasha Indians in the late-seventeenth and early-eighteenth centuries. Most of the sherds recovered at these sites are consistent with an occupation dated to that period. It is likely that some or all of the sites represent these documented settlements.

Relative Elevations of In Situ Archeological Deposits

Table 16 summarizes the relative elevations for artifacts collected during trench excavations. The deposits can be separated into two major groups. Deposits occurring below 3.7 m NGVD consist primarily of antebellum remains, although late-nineteenth and early-twentieth-century items were recovered in lesser amounts. Above 4.0 m NGVD, with few exceptions, material dated at earliest to the late-nineteenth/early-twentieth century, and much of it was modern. The exception to this dichotomy is the metal and miscellaneous items collected from Trench 4 at depths of 3.79 to 3.88 m NGVD. The square nails from this context suggest a date prior to the last quarter of the nineteenth century, but the absence of other chronologically diagnostic material prevents definitive statements.

As will be discussed below, 16SC61 is situated in an area that did not become batture until after the 1930 levee setback. It is therefore likely that the deposits below 3.7 m NGVD (and possibly below 3.88 m NGVD) predate the setback. Cultural materials above 4.0 m NGVD would date to use of the batture after 1930.

Temporal and Cultural Affiliation of the *In Situ* Deposits

Figure 1 shows the location of 16SC61. It is located approximately 100 m (328 ft) from the upriver boundary of Section 34. The site extends approximately 340 m (1115 ft) north/south, indicating that the lower limit of the site is located about 440 m (1443 ft) below the upriver boundary of Section 34.

As noted in Chapter 6, Section 34 within T13S R21E contained structural improvements from its upriver boundary to approximately 813 ft below this boundary in 1879. Structural improvements in this area of Section 34 included a great house (located within 271 ft of the upriver boundary of the section) and seven laborer's cabins, six of which were located between 271 and 813 feet downriver from the upper section boundary. In addition, structural improvements including (presumably) a great house were located between 2208 and 2400 ft downriver from the upriver boundary of Section 34 in the 1870s (in the vicinity of D-78). During this time period, it appears that the area between 813 and 2208 ft (approximately between D-65.5 and D-78) below the upriver section boundary was devoid of structural improvements. Thus, the site as it exists at present can only be partially associated with residential activity dating to the 1870s. That area of 16SC61 south of Trench 1 (located approximately 820 ft below the upriver boundary of Section 34) can be related to laborers cabins that were extant in the 1870s. However, the remainder of the site (Trenches 2 through 5) must derive from habitation that either predated or postdated the 1870s.

Although the only documentary evidence we have for the existence of laborers cabins in the upriver portion of 16SC61 (south of Trench 1) dates to the 1870s, the archeological evidence suggests that they were established at a much earlier date. As noted in Chapter 8, the vast majority of the ceramic artifacts from the 1988 draft report (Shannon et al. 1988) and from the surface collection made by the Corps staff archeologist dated to the antebellum period. Since it was not

unusual for pre-Emancipation quarters complexes to remain intact into the postbellum, it may be assumed that the few cabins still extant in 1870 represent the remains of the early-nineteenth-century quarters. Because these laborers cabins were located across lots extending from the upriver boundary of the section to 813 ft downriver, it may be postulated that the original quarters complex was arranged linearly, parallel to the river.

As discussed in Chapter 6, the Widow Baptiste St. Amand and her son owned 121 slaves between them in 1823. The fact that the slaves were jointly held suggests that the slave population may have been housed within one large complex. The concentration of apparently lower-priced (below) antebellum ceramics within Trenches 7, 6 and 1 suggests that the original quarters complex may have extended at least to 820 feet downriver from the upriver section boundary. Because Trench 2 was excavated to an insufficient depth to recover antebellum deposits, and because pearlware was recovered in Trench 3, it is possible that the original quarters complex may have extended as far downriver as 1148 feet below the upriver section boundary. Recovery of antebellum ceramics from the surface as far downriver as the area between D-69 and D-70 (Figure 14) further supports this suggestion. It should be noted that utilization of the presence of antebellum ceramics to locate pre-Emancipation quarters is not without precedent. This technique has been successfully employed and confirmed by map evidence at Beka Plantation (16OR90, by Yakubik and Franks 1992a) and within the Holy Cross National Historic District (Yakubik and Franks 1992b).

While the above addresses the origin of the antebellum material, late-nineteenth through early-twentieth-century artifacts were also recovered from the trenches located downriver (north) from Trench 1 as well as in surface collections. The association of this material is far more straightforward. Figure 10 illustrates that subsequent to subdivision, the upriver portion of Section 34 became the small community of Coopersville. By 1930, the settlement included stores, a filling station, and the Ama Catholic Church (Figure 12). Figure 12 shows that the sites of these structures, as well as houses, sheds, and cabins, are located on the present-day batture as a result of the 1930 levee setback. Examination of the density of structural improvements in 1930 in fact suggests that more evidence of late-nineteenth/early-twentieth-century activity should have been encountered during

excavations. However, disposal of refuse in discrete contexts rather than a general horizontal scatter is not atypical of late-nineteenth/early-twentieth-century sites in either urban or rural contexts.

Comparison of Figures 10, 12, and 14 also provides additional information. At the time of archeological field investigations, the distance between the bankline and the toe of levee was approximately 75 m. This is approximately the same distance shown between the toe of the present levee (shown as "New Levee") and the highway adjacent to the pre-1930 levee in Figure 12. Thus, much of the gravel that was encountered in all of the trenches undoubtedly derives from this road. It also indicates that the site of the "Old Levee" in Figure 12, which was present as least as early as the 1890s (Figure 9) had been completely lost by the time of the present field effort.

Figure 24 compares Shannon et al.'s (1988:Figure 106) site map to the recent site map (Figure 14). Figure 24 indicates that approximately 20 m of bankline was lost during the period between the two field efforts. This suggests that the lost area consisted of land formerly located under the old highway and levee, and that the features identified in the 1988 report pre-date the ca. 1890s levee. This further suggests that deposits excavated during the recent field survey post-date the 1890s levee and are associated with the development of historic Coopersville.

Finally, the fact that the bankline has evidently migrated behind the ca. 1890s levee helps explain why relatively little antebellum material was collected from the trenches when compared to the rich scatter of material originally found on the bank. It seems very likely that the site as it exists today probably represents the extreme rear of the pre-Emancipation quarters complex. Thus, it is probable that antebellum deposits would have continued to rapidly diminish and disappear altogether within a short distance even if developments associated with Coopersville and excavation of the ca. 1930 borrow ponds had not destroyed them.

Ceramic Index Values

As noted in Chapter 8, minimum numbers of vessels were calculated for ceramics from both surface collections and from excavations. Average ceramic index values (Miller 1980, 1991) were then calculated for plates, bowls, and cups and saucers using the 1824 index

values as the scale. The results are presented in Table 55. These are compared to average index values calculated for the ceramics from the ca. 1800 to 1840 prison occupation at the Cabildo and for ceramics representing approximately the same time period collected from the prison courtyard (Yakubik and Franks 1992c).

Table 55 indicates that the greatest relative expenditures were made on cups and saucers (n=2) at 16SC61, while the least were made on bowls (n=15). However, the former value may be somewhat misleading, since a shell-edged cup was noted for the site and Miller (1980) provides no index value for this decorative type. Since edged wares are generally among the least expensive ceramic types, it suggests that the average index value should in fact be somewhat lower than calculated.

Table 55 shows that the average index values for 16SC61 are not dissimilar to those for the Cabildo prison complex. Expenditures for plates (n=25) as well as cups and saucers at 16SC61 are between the two values calculated for the prison complex, and the expenditures for bowls are equal to the average value calculated for the prison courtyard. Assuming that expenditures on ceramics for the prisoners were minimal, the comparability of the three collections suggests that the ceramics from 16SC61 are associated with occupation by a lower socioeconomic group. This is consistent with the geographic, documentary, and temporal data presented above which indicate that the antebellum deposits at 16SC61 derive from a quarters complex.

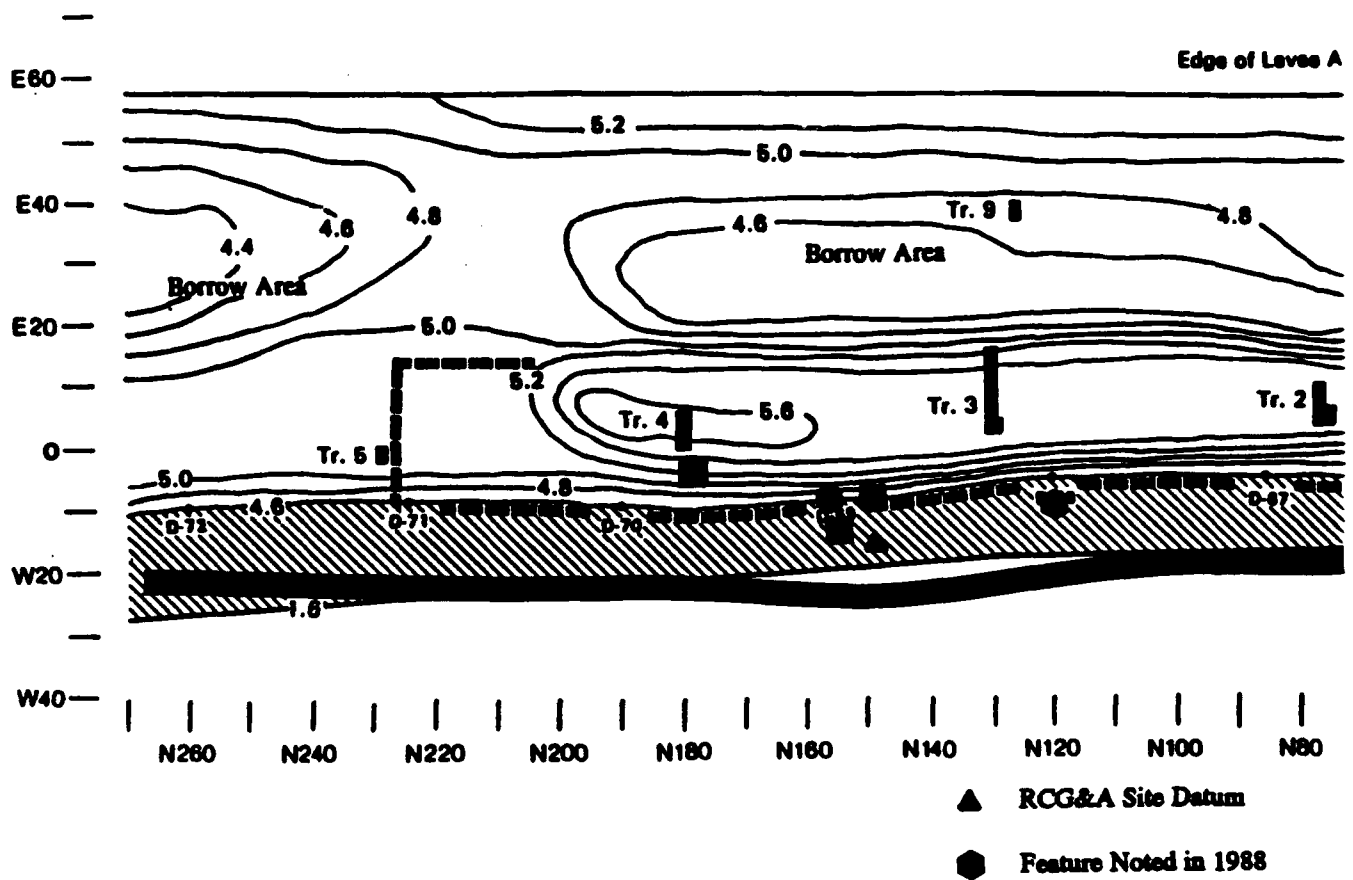


Figure 24. Site map of banklines, showing the and Associates' site data the locations of features investigations (cf. Fig

1

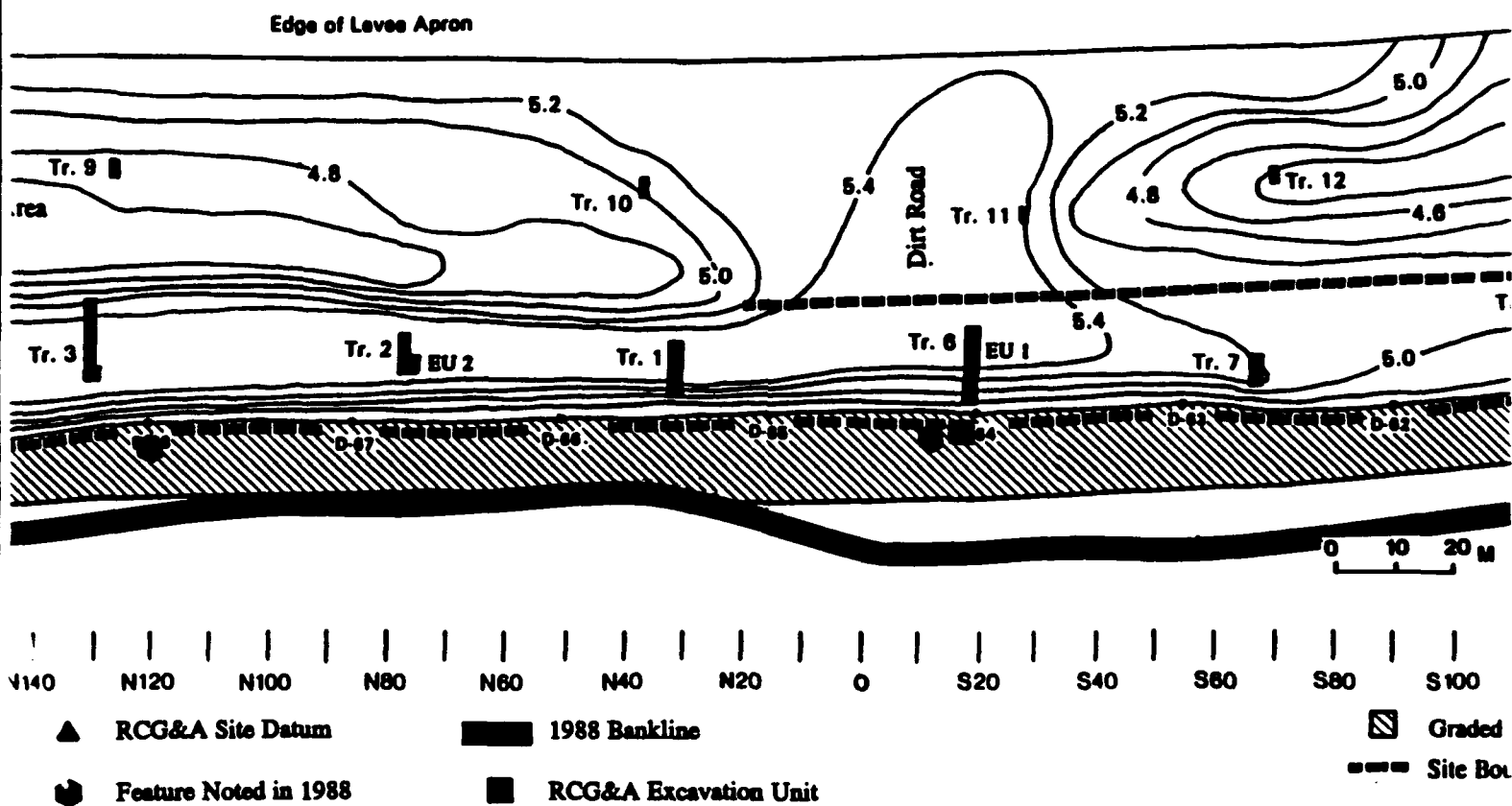
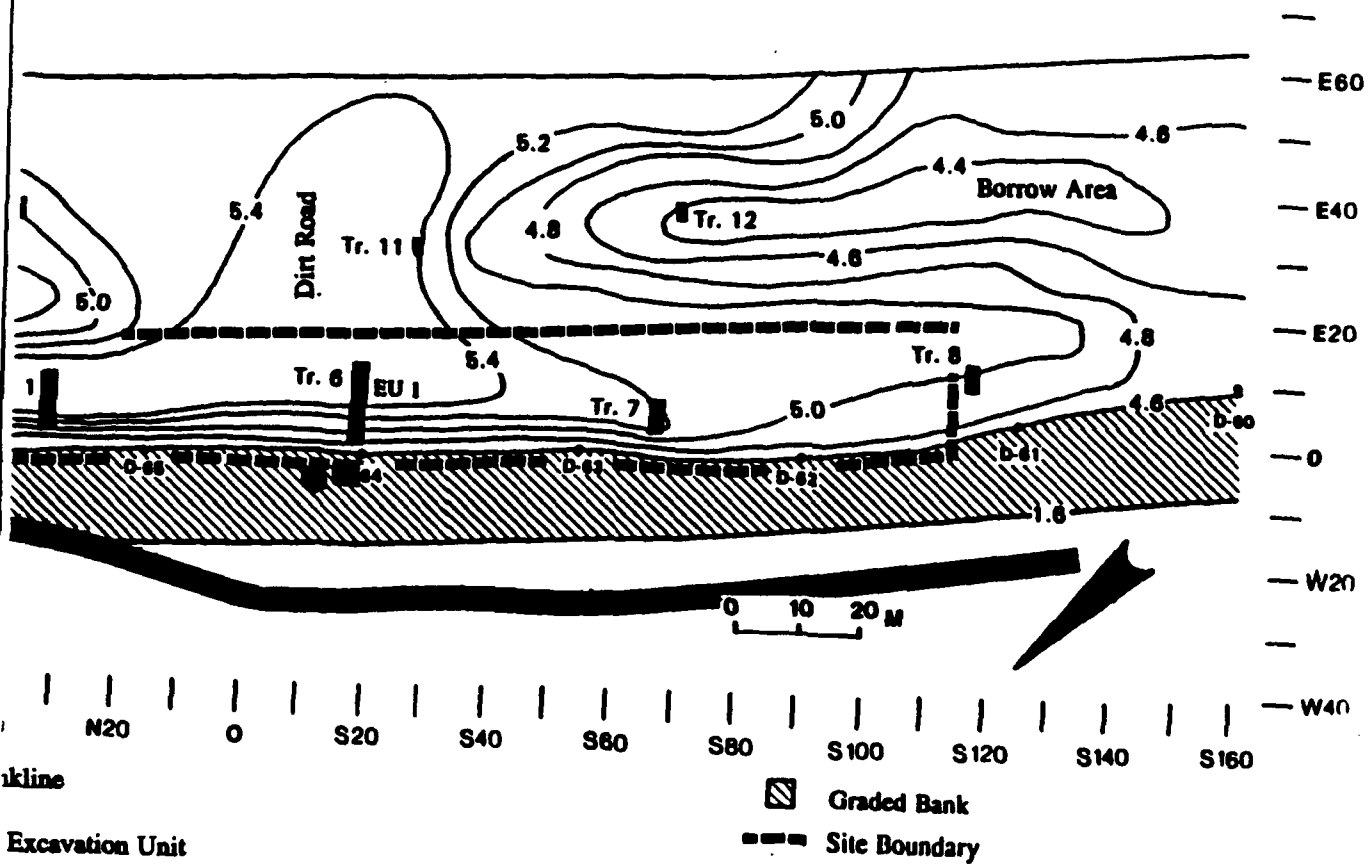


Figure 24. Site map of 16SC61 comparing the 1991 and 1988 banklines, showing the locations of R. Christopher Goodwin and Associates' site datum and excavation units, and showing the locations of features encountered during the 1988 investigations (cf. Figure 13).

2



paring the 1991 and 1988
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Table 55. Average Ceramic Index Values for Plates, Bowls, Cups, and Saucers for 16SC61 and for the Prison occupation at the Site of the Cabillo (index values for 1824 used for 16SC61, index values for 1814 used for the prison; Miller 1980).

	16SC61	Prison Interior	Prison Courtyard
Plates	1.82	2.35	1.40
Bowls	1.60	1.45	1.60
Cups and Saucers	2.22	2.50	2.17

CHAPTER 10 NATIONAL REGISTER EVALUATION

Criterion A is one of four criteria for evaluation of National Register eligibility. Criterion A refers to properties associated with events that have made a significant contribution to the broad patterns of history. However, such a property must be a good representative of that event or of a larger theme or broad pattern, and it should have stronger association with the event or theme than other properties (National Park Service 1982:17-19). 16SC61, a long but narrow archaeological site located within a disturbed batture area, is not a good representative of historic events or themes. Also, other properties in the region have stronger associations with relevant themes listed in Louisiana's Comprehensive Archaeological Plan (Smith et al. 1983:95-96). Therefore, 16SC61 should not be considered significant when evaluated according to the National Park Service guidelines for application of Criterion A (National Park Service 1982:17-19). For 16SC61 to be eligible for the National Register under Criterion B, it should be associated with the lives of persons significant in our past. Extensive archival research has provided no evidence that this is the case. No architectural or engineering structures are present at the site, so it cannot qualify for listing on the National Register under Criterion C (National Park Service 1982:19,22).

Therefore, the only criterion of significance that might apply to 16SC61 is Criterion D which specifies that "Properties may be eligible for the National Register if they have yielded, or may be likely to yield, information important in prehistory or history" (National Park Service 1988:28). In order to qualify, however, an archaeological site must also have integrity:

A buried site eligible for its information potential has integrity if the deposits retain enough of their original content and spatial relationship to be capable of yielding valuable data (National Park Service 1982:39-40).

The remainder of this chapter provides an evaluation of 16SC61 in terms of temporal periods represented and its potential to provide valuable data concerning those periods.

Aboriginal sherds have been recovered at the site, but to date these number fewer than ten and all were collected from the surface. As was discussed in Chapter 9, these sherds probably relate to Native American activity at the site during the protohistoric or early-historic periods. However, extensive backhoe excavations to depths of two to three meters have yielded no evidence of *in situ* deposits related to Native Americans. Therefore, 16SC61 is not likely to yield important information concerning Native American activity in southeastern Louisiana in the seventeenth and eighteenth centuries.

Archival research and field work reported in this volume indicate that 16SC61 does not have the potential to contribute meaningful or useful data related to Euro-American activity during the nineteenth century. Although previous work indicated presence of features, described as a "south wall foundation," a "collapsed chimney," and a "brick patio," no date was assigned to those features. It would appear from this current study that the features previously identified are related to the late-nineteenth/early-twentieth-century development of the Coopersville settlement (Chapter 9, this report). By 1991, the features in question had been lost either to bankline erosion or grading.

As noted in Chapter 9, 16SC61 is presently only about 20 m in width. It probably represents a narrow strip that formerly was the rear of the pre-Emancipation quarters complex and the pre-1930s development of Coopersville. Thus, the context for investigation of issues concerning African-American history is far from ideal. No evidence of features dating prior to the Civil War were uncovered. Also, artifact distribution within the excavations was sparse in comparison to the amount of material that was formerly noted on the bankline. Thus, deposits probably represent the fringes of dispersal of secondary refuse. As such, they are unlikely to yield significant information.

Late-nineteenth/early-twentieth-century residential, public, and commercial activities occurred at this locale, but little archaeological evidence of this later occupation was recovered. As noted above, those remains which were found lacked vertical or horizontal separation from antebellum deposits, thus making separation of chronologically non-diagnostic materials impossible. In addition, borrow excavations during ca. 1930s levee construction have destroyed what remained of Coopersville as documented in Trench and

unit excavations. 16SC61 therefore is unlikely to yield data significant to our understanding of the development of postbellum communities along the Mississippi River.

In summary, Site 16SC61 is not significant under Criteria A, B, C, or D. The site is not eligible for nomination for inclusion on the National Register of Historic Places. No further archaeological investigations are recommended.

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**REVISED
SCOPE OF SERVICES
CONTRACT DACW29-90-D-0017**

**SIGNIFICANCE ASSESSMENT OF SITE 16SC61, LULING REVETMENT
MISSISSIPPI RIVER M-116.7-R**

1. Introduction. This delivery order calls for testing to determine the significance of Site 16SC61. The site is located on the Mississippi River bature in the Luling Revetment easement (Ranges D-58 to D-69) at Mile 116.7 (Enclosure 1, site form; Enclosure 2, Hydrographic Survey 1983-1985, Chart 48). Comprehensive draft and final reports of investigation will be prepared for the study. The contract period for this delivery order is 265 days.

2. Description of the Study Area. The site was located by R. Christopher Goodwin and Associates, Inc. (Shannon et al. 1988) during an intensive survey of the Luling Revetment reach (Enclosure 3, report). The site was defined on the basis of features eroding from the bankline. The report provides little information specific to the site and its contextual setting: the German Coast. Although assigned a size of 400 x 50 m, the testing conducted in 1987 did not define the condition of the site away from the bankline, which is constantly eroding, nor did it locate the point of origin of aboriginal and early antebellum artifacts found secondarily deposited with postbellum and early twentieth century brick and tools. The Technical Representative visited the site in July 1991 and found additional, early twentieth century features eroding from the bankline. The secondary scatter of artifacts suggests the presence of three discreet activity areas within the boundaries of 16SC61, probably attributable to an early nineteenth century domestic occupation and postbellum domestic and industrial use of the property.

3. Description of the Construction Project. The Corps of Engineers proposes to extend the existing Luling Revetment some 5,000 feet downstream from Range D-58. The reach will be stabilized with a continuous articulated concrete mattress which is mechanically laid from the Low Water Reference Plane (LWRP) to a point several hundred feet into the river channel. To prepare for revetting, a 50 foot wide corridor adjacent to the bankline will be cleared of all vegetation and graded to a standard slope. Slope grading will remove the upper bankline within a 50 foot wide corridor adjacent to the edge of bank. The grading distance will vary in areas where caving has occurred. Any cultural resource within 50 horizontal feet and 8 vertical feet of the top of bank has a high potential for being destroyed. Surficial resources further than 50 feet from the bankline may be subject to disturbance from the movement of heavy equipment, but buried sites will remain intact. Rock will be piled from the top of the mattress to the top of the bank, protecting the bank slope from erosion.

4. Study Requirements. The work to be performed by the Contractor will be divided into three phases: Literature Search and Records Review; Site Assessment; and Data Analysis and Report Preparation.

a. Phase 1: Literature Search and Records Review. The Contractor shall commence, upon work item award, with a literature, map, and records review specific to Site 16SC61. General information on St. Charles Parish and the Luling Revetment reach are already collected and provided in Shannon et al. (1988). This study will focus on very specific land title and historical documentation which may explain the formation of Site 16SC61, its use and

abandonment. Data will be collected on prior levee and revetment construction which may have destroyed the site. At a minimum, the literature and records review will identify former uses for the property and place it within the context of other properties and sites along the German Coast.

This phase shall include but not be limited to review of historic maps (i.e., Mississippi River Commission charts, General Land Office maps, land plats, etc.), the State Archeologist's site, shipwreck and standing structure files, the National Register of Historic Places, archeological reports, ethnohistoric records, historic archives, census records, sugar and rice reports, and Land Office or courthouse records. Interpretation of landuse during any given period should not rely on maps alone, but should incorporate as many relevant sources as possible to prove or disprove an hypothesis. Where archival data can not be found, answers to research questions will be sought through interviews.

b. Phase 2: Site Assessment. The Contractor will commence investigation of 16SC61 within 2 days of the date of the order. Physical investigation will be limited to the area from the Low Water Reference Plane to the riverside toe of the mainline levee.

Site testing will be performed within the context of an explicit research design (to be included in the Contractor's proposal), formulated in recognition of field conditions and prior investigations at 16SC61 and in the surrounding region. The Contractor will include backhoe testing in the investigative methodology to 1) locate buried cultural strata, focusing on the protohistoric and early historic components; 2) define true site size; and 3) assess the scientific importance of all components located within the boundary of 16SC61. The goal of the study is to determine and record site size, depth of deposit, stratigraphy, cultural association, function, approximate date of occupation, condition, and site significance. Site boundaries, test excavation units (including test pits, shovel tests, auger intervals, backhoe trenches, etc.) and activity areas will be measured and mapped to scale. All scaled field maps will accurately reference grid locations in terms of levee stations or range markers in close proximity to the work area. The actual elevation (NGVD) of the top of bank, the top of all erosional benches, and the top and bottom of all cultural strata will be determined and mapped. For control purposes, present land surface elevation will be determined every 60 m along the landward edge of the River Road adjacent to Site 16SC61 (D-58 to D-69).

All shovel tests, test pits, trenches and other holes will be backfilled and packed to avoid personal injury and property damage.

Site boundaries and all test units will be recorded (in ink) to scale on the appropriate 7.5 minute quadrangle, aerial mosaic project map, and Hydrographic Survey Chart 48 (1983-1985). The quadrangle will be used to illustrate an updated site form.

Subsurface testing and evaluation of identified resources against the National Register of Historic Places criteria of significance (36 CFR 60.4). The study will provide adequate information to seek a determination of eligibility from the Keeper of the National Register, and will innumerate project effects on the site. The evaluation will be conducted utilizing current professional standards and guidelines including, but not limited to :

Louisiana's Comprehensive Archaeological Plan, dated October 1, 1983;

the National Park Service's draft standards entitled, "How to Apply the National Register Criteria for Evaluation", dated June 1, 1982;

the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation as published in the Federal Register on September 29, 1983;

the Advisory Council on Historic Preservation's Section 106 Update/3 entitled, "Manual of Mitigation Measures (MOMM)", dated October 12, 1982.

The Contractor will fill out and file an updated state site form with the Office of the Louisiana State Archeologist. These forms will correct previously filed information and summarize what is known of the resource as a result of this investigation. Forms for each new sites defined within the work area will also be submitted to the State Archeologist and the resulting state-assigned site numbers will be cited in all draft and final reports of this investigation. One unbound copy of each site form will be submitted to the COR with the draft report.

c. Phase 3: Data Analyses and Report Preparation. All testing data will be analyzed using currently acceptable scientific methods. The Contractor shall catalog all artifacts, samples, specimens, photographs, drawings, etc., utilizing the format currently employed by the Office of the Louisiana State Archeologist. The catalog system will include site and provenience designations.

All literature, map search, field and laboratory data will be integrated to produce a single, graphically illustrated, scientifically acceptable draft report. Data integration requires use and application of all data collected to interpret resources, their setting, formation, destruction and significance.

5. Reports.

a. Monthly Progress Reports. One copy of a brief and concise statement of progress shall be submitted each month throughout the duration of the delivery order. These reports, which may be in letter form, should summarize all work performed, information gained, or problems encountered during the preceding month. A concise statement and graphic presentation of the Contractor's assessment of the monthly and cumulative percentage of total work completed by task shall be included each month. The monthly report should also note difficulties, if any, in meeting the contract schedule.

b. Draft and Final Reports (Phases 1, 2, and 3). Five copies of a draft report integrating all phases of this investigation will be submitted to the COR for review and comment 175 days after the date of the order. One copy each of all site forms and a 7.5 minute quadrangle map marked with site locations will be submitted separately with the draft report.

All data collected will be reported. The final report will fully describe how data were collected. The final report shall include maps of each site located and tested. These maps shall illustrate locations of shovel tests, test units, auger holes, trenches, artifact distributions, activity areas and features. Each map will give the distance and direction from the site datum to a permanent bench mark.

Project impacts to every cultural resource located and/or tested by this study will be assessed. The draft and final reports shall include all data and documentation required by 36 CFR 60-63 to prepare requests for Determination of Eligibility to the National Register of Historic Places for those sites recommended by the Contractor as significant. The Contractor shall provide justification of the rationale used and a detailed explanation of why each resource does or does not meet the National Register significance criteria (36 CFR 60.4). For each resource recommended as eligible to the National Register and assessed to be impacted by construction, the Contractor shall recommend specific mitigation alternatives appropriate to the site or

structure, its physical setting and condition. Discussion of mitigation will include an implementation plan recommending field and laboratory techniques, equipment to be used, sizes of samples and excavation units, description of any special procedures, etc. Inferential statements and conclusions will be supported by field, map or archival data. It will not be sufficient to make significance recommendations based solely upon assumed site condition, artifact content, or the presence or absence of features.

These written reports shall follow the format set forth in MIL-STD-847A with the following exceptions: 1) separate, soft, durable, wrap-around covers will be used instead of self covers; 2) page size shall be 8-1/2 x 11 inches with a 1-1/2-inch binding margin and 1-inch margins on all other edges; 3) the editorial policy and style guide of the Society for American Archaeology (1983) will be applied to the report text, citations and References Cited. Spelling shall be in accordance with the U.S. Government Printing Office Style Manual, dated January 1973.

The body of each report shall include the following: 1) introduction to the study and study area; 2) environmental setting; 3) review and evaluation of previous archeological investigations; 4) research design; 5) description of field and laboratory methodology, statement of project objectives, and analysis of methodological effectiveness; 6) data analyses and cultural material inventories; 7) data interpretation; 8) integration of archeological and historical data; 9) conclusion; 10) data recovery recommendations for significant site; 11) references cited; and 12) appendices, as appropriate. The transcripts of all interviews will be provided in an appendix as will data and profiles from all borings and/or backhoe trench profiles collected during the field phase of this study.

The COR will provide all review comments to the Contractor within 45 days after receipt of the draft reports (220 days after the date of the order). Upon receipt of the review comments, the Contractor shall incorporate or resolve all comments with the approval of the COR and submit one copy of the final draft for final review within 250 days of the date of the order. Upon approval, the Contractor will submit one reproducible master copy and 40 bound copies of each report of investigation, and all separate appendices to the COR within 290 days after the date of the order.

In order to preclude vandalism, the draft and final reports shall not contain specific locations of archeological sites.

6. Disposal of Records and Artifacts. All records, photographs, artifacts, and other material data recovered under the terms of this delivery order shall be recorded and cataloged in a manner compatible with those systems utilized by the Louisiana SHPO and by State and Federal agencies which store archeological data. They shall be held and maintained by the Contractor until completion of the delivery order. Final disposition of the artifacts and records will be in accord with applicable Federal and State laws. Unless otherwise specified, artifacts will be returned to the landowner or permanently housed with the Louisiana Division of Archaeology and Historic Preservation or in a repository selected by the State Archeologist. The Principal Investigator shall inform the COR in writing when the transfer of data has been completed and shall forward to the COR a catalog of items entered into curation. The location of any notes, photographs or artifacts which are separated from the main collections will also be documented. Presently existing private archeological collections from the project area which are used in data analyses will remain in private ownership. The Contractor shall be responsible for delivery of the analyzed archeological materials to the individual landowners, the Louisiana SHPO's office, or any other repository designated by the Government following

acceptance of the final report. All artifacts to be permanently curated will be cleaned , stabilized, labeled, cataloged on typed State curation forms, and placed in sturdy bags and boxes which are labeled with site, excavation unit or survey collection unit provenience.

**APPENDIX II
NARRATIVE OF BACKHOE EXCAVATIONS**

TRENCH ONE

Length 1

110-140 (4.12-3.82)	Wood
200 (3.22)	Small amt. of rangia

Length 2

160-180 (3.62-3.42)	Small amt. of rangia
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Length 3

160 (3.62)	Brick smear
160-170 (3.62-3.52)	Oyster lens
	2 Pearlware sherds
	3/4 of a brick
	Nail

180-190 (3.42-3.32)	Oyster shell
	Brick
	Blue shell edge

Length 4

0-40 (5.22-4.82)	Clear water worn glass
------------------	------------------------

150-154 (3.72-3.68)	Rangia
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154-160 (3.68-3.62)	Oyster shell
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160 (3.62)	Brick
	Oyster
	Metal

160-164 (3.62-3.58)	Pearlware
	2 sherds
	Metal
	Oyster shell
	Brick bits

164-167 (3.54-3.51)	Pearlware
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167-170 (3.51-3.48)	1 Sherd
	3 Pieces of gravel

170-173 (3.52-3.49)	Large brick and brick fragments Oyster shell
173-178 (3.49-3.44)	Brick fragments
178-182 (3.44-3.4)	Tiny brick fragments
Length 5	
128 (3.94)	Small amt. of rangia
146 (3.76)	1 Gravel and 1 rangia
146-149 (3.76-3.73)	1 Rangia
152-157 (3.7-3.65)	1 Rangia
157-158 (3.65-3.64)	1 Rangia
158-159 (3.64-3.63)	1 Rangia 1 Piece of gravel
159-160 (3.63-3.62)	Oyster shell 3/4 of a brick
160 (3.62)	Gravel
160-161 (3.62-3.61)	Brick
161-163 (3.61-3.59)	Good sized Brick Oyster shell 1 Transfer print 1 Pearlware
163-168 (3.59-3.54)	1 Pearlware 1 piece of metal Oyster shell Brick fragments
168-170 (3.54-3.52)	1 piece of glass 1 Rangia
170-172 (3.52-3.5)	Brick fragment Oyster shell
172-175 (3.5-3.47)	1 Sherd
175-180 (3.47-3.42)	Fewer rangia

Length 6

139-146 (3.83-3.76)	Rangia
155-156 (3.67-3.66)	1 Rangia
156-159 (3.66-3.63)	Large and small gravel
159-160 (3.63-3.62)	Brick stains and fragments Small amt. of gravel
160-163 (3.62-3.59)	Blue glass Brick fragments
163-165 (3.59-3.57)	Good sized brick fragments 1 Pearlware Mortar Coal or cinder smear
165-168 (3.57-3.54)	Oyster and brick fragments
168-169 (3.54-3.53)	Brick fragment
169-173 (3.53-3.48)	Brick fragments Oyster shell
173-174 (3.48-3.47)	Brick fragments
174-179 (3.47-3.43)	Tiny brick pieces
185 (3.37)	Wood (root)

Length 7

130-140 (3.92-3.82)	Rangia
140-150 (3.82-3.72)	Large amt. of gravel
152-156 (3.7-3.66)	Gravel Rangia
156-161 (3.66-3.61)	Oyster shell Gravel Rangia
161 (3.61)	Brick smears

161-163 (3.61-3.59)	Brick Oyster shell Rangia Coal Pipestem 1 Seed Pearlware
163-166 (3.59-3.56)	Brick 2 Dark green glass pieces Oyster shell
166-169 (3.56-3.53)	Brick 1 Piece of metal Gravel (From wall of trench)
169-172 (3.53-3.5)	Small amt. of brick Small amt. of rangia
177 (3.45)	1 Square nail

TRENCH TWO

Length 2

230 (3.6)	Large brick fragments from wall
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Length 3

160-163 (4.3-4.27)	Brick fragments
163 (4.27)	Brick smears
163-170 (4.27-4.2)	Large amt. of brick fragments Decaled ironstone Thick plate glass Metal (possible machine parts)
170-172 (4.2-4.18)	Brick fragments Amorphous metal
172-176 (4.18-4.14)	Very large amt. of brick 1 piece plate glass
176-182 (4.14-4.08)	Brick Mortar
182-186 (4.08-4.04)	Brick Square nail
186 (4.04)	Laid brick

Length 3 Exp.

163 (4.27)	Sherd
163-169 (4.27-4.21)	Plate glass Brick

TRENCH THREE

Length 1

0-130 (5.45-4.15)	Plastic
200 (3.45)	1 Piece of plastic

Length 2

0-210 (5.45-3.4)	Plastic
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Length 3

150 (3.95)	Organic Material Iron staining Rangia
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Length 4

100-130 (4.45-4.15)	Organic/Iron rich zone Coke bottle top Rangia
200 (3.45)	Rubber
250 (2.95)	Large charred or rotted root

Length 5

0-100 (5.45-4.45)	Organic zone Rangia
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Length 6

180 (3.65)	1 Piece of gravel
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Length 7

124 (4.21)	Oyster shell smears
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Length 8

100 (4.45)	Modern oil filter
110 (4.35)	Small animal trap
220 (3.25)	Brick fragments, possible adobe
229 (3.16)	Soft orange brick
234 (3.11)	Possible feature

Length 8 Exp.

200 (3.45)	Thick brick
	Board
	Wood, probably a tree root

TRENCH FOUR

Length 1

150 (4.01)	Peanut butter label
------------	---------------------

Length 2

180 (3.71)	1 Piece of metal
------------	------------------

Length 3

163 (3.88)	1 Piece of gravel
	1 Rangia
	Square tack
163-168 (3.88-3.83)	1 Square nail and nail fragments
168-172 (3.83-3.79)	1 Brick fragment
	Square nails

Length 4

100 (4.51)	Amorphous metal
125 (4.26)	Amorphous metal
160-163 (3.91-3.88)	Oyster shell stains
	Mortar
	Tiny brick fragments
163-167 (3.88-3.84)	Square nail
	Tiny brick fragments
167-169 (3.84-3.82)	Square nails

TRENCH FIVE

Length 1

30 (4.72)

**Rangia
Oyster shell
Gravel
Brick bits and a half of a
brick
Coal**

TRENCH SIX

Length 1

0-250 (5.48-2.98)

Occasional rangia

Length 2

0-250 (5.48-2.98)

Occasional rangia

60-100 (4.88-4.48)

Pieces of misc. metal

Length 3

83 (4.65)

**Clear screw top liquor bottle
Tar paper**

83-124 (4.65-4.24)

**Tar paper
Asbestos
Shingle
Styrofoam (fluorescent orange)**

187 (3.61)

Oyster shell staining

75 (4.73)

Amorphous metal

Length 5

159 (3.81)

Oyster staining

180 (3.68)

Piece of bark on floor

180-183 (3.68-3.65)

**Ironstone
Blue transfer print
Whiteware**

183 (3.65)

**Tiny brick fragments and
stains**

183-189 (3.65-3.59)	Brick stains in floor 1 Piece of gravel Brick
189-191 (3.59-3.57)	Brick Square nails Gravel
191-197 (3.57-3.51)	Pearlware Brick Brown glass Gravel
197-202 (3.51-3.46)	Glass Ceramic Metal Oyster shell Gravel
202-210 (3.46-3.38)	Large and small brick fragments Gravel
210-213 (3.38-3.35)	Brick Oyster shell Square nails Metal
213-215 (3.35-3.33)	Glass Brick Oyster shell Gravel Pearlware Ironstone? Metal Whiteware?
215-224 (3.33-3.24)	Brick Oyster shell 1 Small sherd Brick clinker fragment Corroded metal
224-232 (3.24-3.16)	2 Small sherds (Whiteware, Pearlware?)
233-245 (3.15-3.03)	1 Blue transfer print (from wall)

TRENCH SEVEN

Length 1

175 (3.52)	Brick Glass Shell Gravel
175-179 (3.52-3.48)	Square nail Rangia Brick Glass Gravel Mortar
185-189 (3.42-3.38)	Brick Gravel Oyster shell smear Mortar
189 (3.38)	Brick smear in floor
195-215 (3.32-3.12)	Gravel Plaster Ceramics Brick Mortar
East 1/2 only 195-205 (3.32-3.22)	Brick bits

Length 2

169 (3.58)	Brick
169-170 (3.58-3.57)	Brick fragments Blue shell-edged pearlware
170-173 (3.57-3.54)	Brick fragments Rangia Plaster
173-175 (3.54-3.52)	Brick fragments Mortar or plaster
182-186 (3.45-3.41)	Blue shell-edge Brick Rangia Large amt. of gravel

186-189 (3.41-3.38)	Finger painted Rangia Brick Gravel
189-192 (3.38-3.35)	A small amt. of rangia Nail
192-196 (3.35-3.31)	Brick Mortar Square nail A small amt. of rangia
203-206 (3.24-3.21)	Small fragments of bricks
206-212 (3.21-3.15)	Small fragments of bricks Rangia
212-225 (3.15-3.02)	Mortar Rangia
225-230 (3.02-2.97)	Mortar Small fragments of bricks
Lengths 1&2	
225-230 (3.02-2.97)	Brick Nail Mortar
230-245 (2.97-2.82)	Brick Ceramic
245-250 (2.82-2.77)	Brick fragments
253-260 (2.74-2.67)	Brick fragment

TRENCH EIGHT

Sterile

TRENCH NINE

0-30 (4.83-4.53)	10YR 4/2 and 10YR 3/3 mottled silt clay and clayey silt
30-50 (4.53-4.33)	10YR 4/4-3 silty clay

50-60 (4.33-4.23)	10YR 4/1 clay with 5YR 4/6 mottling
60-80 (4.23-4.03)	10YR 5/3 silt
80-100 (4.03-3.83)	10YR 5/3 silt with pockets of 10YR 4/2 clayey silt
100-130 (3.83-3.53)	10YR 4/2 clayey silt with pockets of 10YR 5/3 silt to a depth of at least 125
130-150 (3.53-3.33)	10YR 5/3 silt with fine sand
150-170 (3.33-3.13)	10YR 5/3 silt with 10YR 5/1 mottling
170-190 (3.13-2.93)	10YR 4/1 silty clay
190-200 (2.93-2.83)	10YR 4/1 silty clay with 5YR 3/4 mottling

TRENCH TEN

0-30 (5.13-4.83)	10YR 4/2 clayey silt with mottling
30-50 (4.83-4.63)	10YR 5/3 silt
50-60 (4.63-4.53)	10YR 4/2 silty clay
60-90 (4.53-4.23)	10YR 5/3 silt (the pockets have disappeared)
90-130 (4.23-3.83)	10YR 5/3 silt with a large pocket of 10YR 5/1 clay and other pockets of same
130-150 (3.83-3.63)	The 10YR 5/1, pockets of 10YR 5/3 silt
150-180 (3.63-3.33)	10YR 5/3 silt with pockets of 10YR 5/1 clay
180-200 (3.33-3.13)	10YR 5/3 clay with mottling

TRENCH 11

0-10 (5.48-5.38)	10YR 4/2 silty clay
10-30 (5.38-5.18)	10YR 5/3 clayey silt
30-60 (5.18-4.88)	10YR 5/3 silt
60-80 (4.88-4.68)	10YR 4/1 silty clay with 5YR 3/4 mottling
80-90 (4.68-4.58)	10YR 5/3 silt
90-105 (4.58-4.43)	10YR 5/3 silt with pockets of 10YR 5/1 silt
105-130 (4.43-4.18)	10YR 5/1 silty clay
130-140 (4.18-4.08)	10YR 5/3 silt with pockets of 10YR 5/1 silty clay
140-170 (4.08-3.78)	10YR 4/1 clay with 5YR 3/4 mottling
170-175 (3.78-3.73)	10YR 4/2 clay with ferrous oxide deposits
175-180 (3.73-3.68)	10YR 5/1 clay
180-190 (3.68-3.58)	10YR 5/3 silt 10YR 5/3 silty sand, water at 190cm
190-200 (3.58-3.48)	10YR 4/2 clay with ferrous oxide deposits

TRENCH 12

0-20 (4.35-4.15)	10YR 4/2 mottled clayey silt
20-40 (4.15-3.95)	10YR 4/2 clayey silt with 5YR 4/6 mottling
40-50 (3.95-3.85)	10YR 5/1 silty clay with 5YR 3/3 mottling
50-60 (3.85-3.75)	10YR 5/3 clayey silt with iron oxide
60-75 (3.75-3.60)	10YR 5/3 clayey silt with pockets of 10YR 5/1

75-90 (3.60-3.45)	10YR 5/3 silt
90-100 (3.45-3.35)	By 90cm there are no pockets of 10YR 5/1 within the 10YR 5/3 silt
100-120 (3.35-3.15)	10YR 4/1 silty clay
120-140 (3.15-2.95)	10YR 5/3 silt
140-165 (2.95-2.70)	10YR 4/2 silty clay, clayey silt

APPENDIX III CERAMIC CLASSIFICATION

As noted in Chapter 8, a paradigmatic classification was utilized for the ceramics from 16SC61. This classification is presented in greater detail in Yakubik (1990). The discussion below summarizes chronological information provided by ceramics. Examples of the ceramics from 16SC61 are illustrated in Figure 23.

Prior to ca. 1780, the ceramic assemblage of southeastern Louisiana is essentially French Colonial in character. That is, collections are dominated by French faience and continental European coarsewares. After ca. 1780, British ceramics became widely available in the area. By 1800, there was little use of French ceramics. Sherds of faience and continental European coarsewares that occur in early-nineteenth-century assemblages undoubtedly are the product of relict use (Yakubik 1990).

Faience is a tin-enamelled earthenware. The porous buff- to pink- or red-colored earthenware paste is covered by an opaque white enamel composed of silica, calcined lead, and tin oxide (Giacomotti 1963:5; Lane 1970:1). Faience recovered from archeological contexts is generally the type referred to as *faience blanche* or *faience populaire* by collectors. These specimens are generally plain or exhibit only simple decoration.

The metal oxide decoration was painted over the raw enamel, and the colors melted into it during firing. This technique, known as *grand feu*, restricted the palette to those metal oxides that could withstand the heat (ca. 900° Centigrade) necessary to fuse the enamel. These included blue (cobalt), green (copper), purple (manganese), yellow (antimony), and orange (iron). Of these, blue was by far the most preferred, both because of the stability of cobalt oxide and because many potters wished to imitate blue and white Chinese porcelain (Giacomotti 1963:11; Lane 1970:1).

The introduction of a second, low-temperature (ca. 600° Centigrade) firing in a muffle kiln permitted an expansion of the decorative palette. This technique, called *petit feu*, was adopted in France in the mid-eighteenth century. *Petit feu* colors included more reliable reds, rose-pink, and gold.

Brown Faience (Yakubik 1990:282-288) (*faïence brune*, *brun de Rouen*, or Rouen ware) is a distinct category of French faience. It usually has a brick red paste, although pink and buff examples are occasionally found. The vessel exteriors are covered in a brown-to-purple manganese glaze. Decoration, if any, is almost always blue *camafieu*, or blue outlined in darker blue, black, or purple. All of the Brown Faience from the Cabildo was undecorated.

Brown Faience was first manufactured in 1707. Although Walthall (1991:91-93) suggests that this type dates 1740 to 1790 in the Illinois Country, the data are not available for southeastern Louisiana to reduce the date range below 1707 to ca. 1800.

Continental European coarsewares were also recovered from 16SC61. One of the most common types found in southeastern Louisiana is Green-Glazed Redware (Yakubik 1990:226-228). This type may have been manufactured in France. The red paste has a moderately coarse texture, and vessels are frequently unevenly fired. The glaze is dark-green to olive colored, and has a tendency to erode or patinate. It is relatively common in eighteenth and early-nineteenth-century contexts. This ware has been recovered recently within the Holy Cross Historic District in New Orleans (16OR130; Yakubik and Franks 1992b), at the site of the Cabildo in New Orleans (Yakubik and Franks 1992c), and at Whitney Plantation in St. John the Baptist Parish (Donald Hunter, personal communication 1991). The contexts dated to the terminal-eighteenth/early-nineteenth century at the first two of these sites.

One unusual type recovered from the 16SC61 was White-Slipped Interior and Green-Glazed Exterior Redware (Yakubik 1990:225-226). The white interior slip shows pale yellow through the lead glaze, and the exterior glaze is apple green. The compact red-colored earthenware paste is similar to that of other wares manufactured in Charente Maritime, France, during the eighteenth century. The type has also been found at the Hermann-Grima House site in New Orleans' Vieux Carré, at Elmwood Plantation in Jefferson Parish, and at the site of the Cabildo in New Orleans. It was recovered from a late-eighteenth-century context at the Cabildo.

Pink-Slipped and Lead-Glazed Redware (Yakubik 1990:241-242) is a common type in southeastern Louisiana, but it does not appear to occur outside of the area. The compact red-colored earthenware paste is

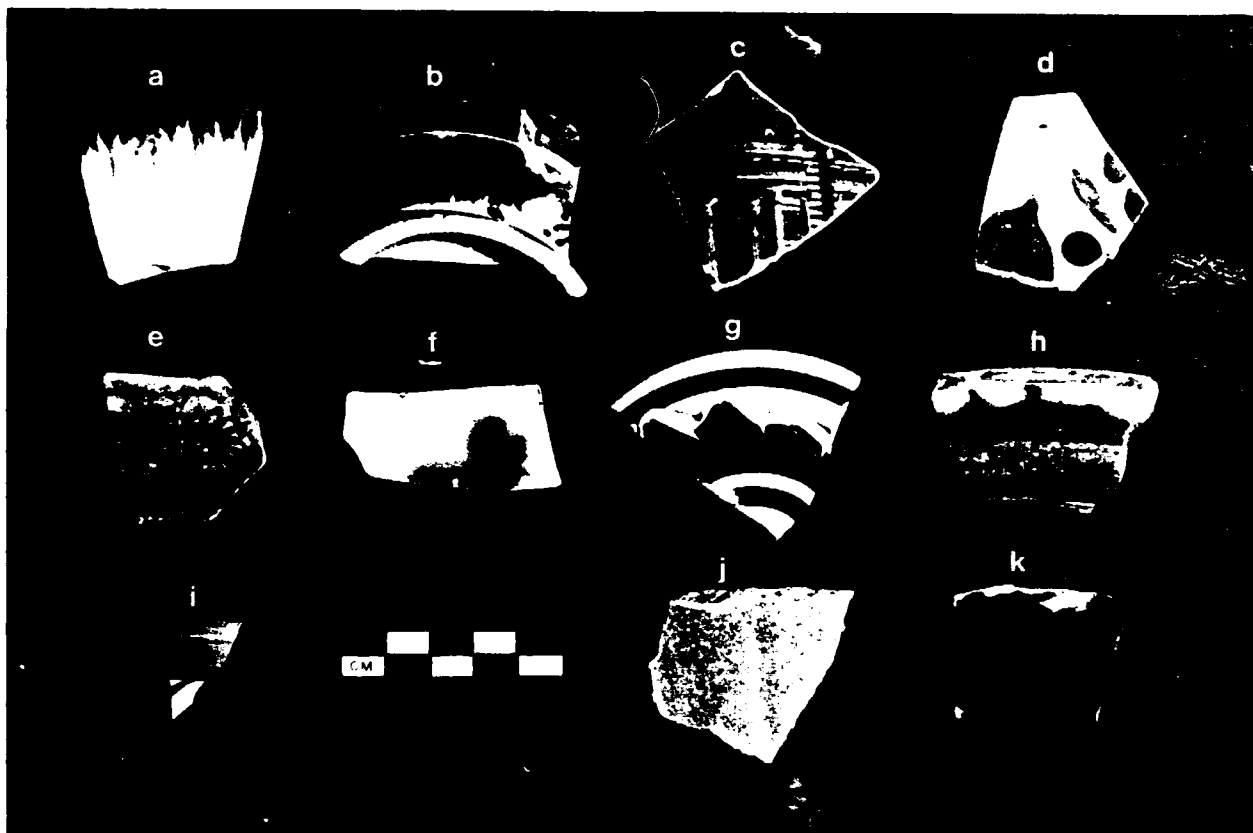


Figure 25. Ceramics from 16SC61.

- a. Blue shell-edged pearlware
- b. Blue transfer-printed pearlware
- c. Blue transfer-printed pearlware
- d. Blue hand-painted pearlware
- e. Blue transfer-printed pearlware
- f. Flow blue ironstone
- g. Finger-painted pearlware
- h. Brown faience
- i. Blue hand-painted pearlware
- j. Pink-Slipped and Lead-Glazed Redware
- k. Rockinghamware

not unlike that of the southern French wares, suggesting this may be a possible source for this type. However, if the apparent distribution of this type is not an artifact of inadequate descriptions, it may have been locally manufactured. The vessel interior is covered with a pink slip, which is then covered with a lead glaze. It should be noted that Donald Hunter of Coastal Environments, Inc., recently noted a variant of this type with a yellowish slip at Whitney Plantation in St. John the Baptist Parish (personal communication, 1991). This type was also recovered from an early-nineteenth-century context at the Cabildo.

The final coarseware type recovered from 16SC61 is Lead-Glazed Pink Earthenware (Yakubik 1990:230-232). This type corresponds closely to description of the Spanish type El Morro ware (Deagan 1976:92-94, 1987:50-51; Smith 1962:69). The type has a coarse, poorly wedged and often unevenly fired pink earthenware paste with moderate amounts of sand and red particles. The vessels are glazed only on the interiors, although the exteriors usually exhibit self-slips. Tempering material frequently protrudes through the surface of the vessel. El Morro ware has been dated to the period 1550 to 1770, but this type occurs as late as the early-nineteenth century in southeastern Louisiana (Yakubik 1990:231). It has recently been recovered from an early-nineteenth century context in the Holy Cross National Historic District (Yakubik and Franks 1992b).

As noted above, widespread availability of British ceramics in southeastern Louisiana did not occur until the 1780s. The first type to be marketed in quantity in the area was creamware. Cream-colored earthenware was produced in England as early as the 1740s. The composition of the paste was the same as that of white salt-glazed stoneware, but it was fired at a lower temperature, colored with metal oxides, and covered with a lead glaze (Noel Hume 1972:350). In 1759, Josiah Wedgwood and Thomas Whieldon produced a cream-colored earthenware body covered with a fluid green glaze. The ware was not popular, and Wedgwood embarked upon further refinements of the cream-colored paste. By about 1762, he had developed creamware, which he called "creamcolour," and which is also known as "Queen's ware" (Noel Hume 1970:124, 1972:350). Creamware has a thin, refined cream-colored earthenware paste covered with a clear lead glaze which appears yellowish or greenish in vessel crevices. The ware continued in use through the first two decades of the nineteenth century. The popularity of creamware contributed to England's

increasing control of the world ceramic market in the late-eighteenth century (Miller 1980).

Although decorated creamware was produced, creamware recovered from archaeological contexts is usually plain. Creamware occasionally received annular decoration, which consists of multiple horizontal bands of multi-colored slips around the vessel often in conjunction with engine-turned decoration. Annular decoration is found on creamware after ca. 1785 (Noel Hume 1970:131).

Variants of annular decoration include mocha and finger-painted decoration, both of which also include bands of multi-colored slips. The latter consists of colored slips which are swirled together to give a marbled effect. Mocha decoration is so named because it resembles the dendritic patterns of quartz from Mocha on the Red Sea. The brown, fern-like pattern is produced by a tobacco infusion in stale urine and turpentine which is applied to the colored-slipped body (Van Rensselaer 1966:337). Both are found on creamware from the 1790s to the early-nineteenth century.

Wedgwood developed pearlware from creamware by 1779. Noel Hume (1969:390; 1970:128) notes that although the pearlware paste contains more flint than that of creamware, the cream-colored earthenware pastes of the two are virtually identical (Sussman 1977:105). However, the lead glaze of pearlware is tinted with cobalt oxide. The cobalt has the effect of whitening the appearance of the cream-colored earthenware body of pearlware.

Unlike creamware, pearlware was usually decorated. Annular, mocha, and finger-painted decoration all are found more frequently on pearlware than on creamware. One of the most common forms of decoration on pearlware is shell-edging. This consists of a molded, shell-like rim that is decorated with either blue or green hand-painting. While Noel Hume (1970:131) states that eighteenth-century examples tend to be finely painted with individual brush strokes evident on the rim, and that later pieces are less well-executed, Sussman (1977:108) did not find these criteria helpful for dating. Instead, she suggests that eighteenth-century traits include a flat rim which may have an upturned brim and which has sharply defined edges. Bases are either flat, countersunk, or have a rounded ring foot. Nineteenth-century examples are more similar in appearance to whiteware (below). Traits include concave

or S-shaped rims with rounded edges and wedge-shaped or double-ridged foot rings (Sussman 1977:109). In addition, nineteenth-century pearlware sometimes exhibits a variety of fronds, garlands, and floral devices molded on the edge and painted in blue or green (Sussman 1977).

Transfer-printing is also frequently found on pearlware. The technique of transfer-printing was developed in the mid-eighteenth century. It involved engraving a plate with the desired pattern and printing it on tissue paper. The paper was laid on the vessel, transferring the pattern to the piece. Blue transfer-printed pearlware was first produced in quantity in the 1790s. Blue was by far the most common color utilized in transfer-printing because cobalt is the most stable of the coloring oxides, and the perfection of printing colors such as red, brown, and purple underglaze was not achieved until the late 1820s (Majewski and O'Brien 1987:119,139).

The decoration on pearlware was often hand-painted underglaze, either in blue (often oriental motifs, and less frequently in floral patterns) or in polychrome floral and geometric patterns. While blue hand-painted pearlware was produced from the inception of the ware, polychrome hand-painting on pearlware did not occur until ca. 1795 (Noel Hume 1970:129).

White-colored earthenware was the result of the introduction of increasing amounts of cobalt into the cream-colored ceramic paste during the early-nineteenth century. The bodies of these ceramic vessels became thicker and coarser over time; the net effect of this whitening of the paste was a reduction in its plasticity. The result of these changes distinguishes white-colored earthenware from cream-colored earthenware. During the first quarter and into the second quarter of the nineteenth century, the white-colored earthenware body frequently was covered with a cobalt tinted glaze typical of pearlware. Ultimately, the use of cobalt additives in the glaze was reduced, and by the end of the first quarter of the nineteenth century, a white-colored earthenware paste with a clear glaze was being produced. This type commonly is referred to as whiteware.

Sherds transitional between pearlware and whiteware are often found. As was the case with pearlware, these ceramics were usually decorated. Decoration found on transitional white-colored earthenware includes

techniques found on pearlware such as annular banding, finger-painting, shell-edging, polychrome hand-painting, blue hand-painting, and transfer-printing. The transfer-print palate was expanded ca. 1830 to include colors such as red, green, brown, and purple. Spatter (or sometimes called sponged) decoration also is found. Introduced in the 1820s, the earliest spatter decoration was produced by spattering paint from a full brush on the vessel using a stencil. Reserved areas were often hand-painted (Ray 1974:211-212; Majewski and O'Brien 1987:161-162).

Whiteware also received a wide variety of decoration. Transfer-printing in a variety of colors is the most common decorative treatment found on whiteware. In addition, a variation on transfer-printing, flow blue, is often recovered. This decoration was produced by the deliberate introduction of a chlorinated vapor into the kiln, which blurred the transfer-print. Patterns on later examples tend to be more distinct than those on earlier pieces. Introduced ca. 1825, Flow Blue was utilized on whiteware and ironstone (below) into the early-twentieth century. Flow purple and flow brown were also produced in lesser quantities (Ray 1974:69).

Other decoration seen on whiteware includes annular, mocha, finger-painting, shell-edging, blue and green edging, blue hand-painting, polychrome hand-painting, and spatter. Stamped decoration, in which a cut sponge was used to apply pigment to the vessel (Ray 1974:212), also is found in contexts post-dating 1845 (Majewski and O'Brien 1987:161).

Another white-colored earthenware popularized during the mid-nineteenth century in America and England was variously referred to as ironstone, stone china, and white granite. This type also has a refined white-colored earthenware paste. Worthy (1982:335-337) classifies it as a white stoneware, yet states that the body is "almost vitreous." Since stonewares by definition are vitrified, this precludes the classification of ironstone as a stoneware.

It should be noted that Worthy (1982) is correct in stating that whitewares are easily distinguished from later ironstones. Unfortunately, distinctions between the two types at mid-century are less clear. While it seems that sufficient differences exist between whiteware and ironstone in terms of paste composition, permeability, body thickness, decoration, and surface color to justify their segregation, it is equally clear

that these differences form a continuum between the two types, just as pearlware gradually grades into whiteware. Barber (1902:19) states that the formula for ironstone is similar to that used in all white ceramic wares, namely flint, feldspar, kaolin, and ball clay.

As stated above, ironstone was developed in England ca. 1850, and was produced in the United States at a slightly later date (Ramsey 1947:153). Miller (1991:10) has indicated that it was being imported to the United States by the 1840s. It has a hard white, and often thick and heavy ceramic body. It is semivitreous, whereas whiteware is nonvitreous. Ironstone fractures evenly and smoothly. The surface appearance is hard and smooth, usually with an opaque-looking glaze with a blue-gray cast. It is frequently undecorated, or decorated with only molded relief. However, transfer-printing is not uncommon, particularly on late-nineteenth and early-twentieth-century examples. Decorative motifs usually consist of floral patterns, unlike the primarily scenic transfer-prints found until the mid-nineteenth century on pearlware and whiteware. Decalcomania is also common after ca. 1900. In addition, ironstone is sometime found with gilt decoration.

Heavy-bodied ironstone declined in popularity at the end of the nineteenth century in favor of lighter-weight, usually decorated, semivitreous wares, but they were still readily available at least as late as 1895 (Majewski and O'Brien 1987:123-124). A comprehensive discussion of the complexities of nineteenth-century white-bodied ceramic production is beyond the scope of this study, but the reader is referred to Majewski and O'Brien (1987) for further information. However, in an effort to refine the late-nineteenth-century ceramic chronology, three separate categories of ironstone are identified herein: "classic" ironstone, ironstone, and "modern" ironstone. Classic ironstone is defined as having a thick, heavy body and a blue-gray cast. The date range of 1850 to 1900 is tentatively proposed for this category; it is anticipated that data from closely-dated contexts will refine the upper end of this range. The category ironstone encompasses the terminal-nineteenth/early-twentieth-century, thinner and lighter semivitreous wares as well as sherds deriving from thin sections of classic ironstone vessels. Thus, it is somewhat a catch-all category, and has a tentative date range from 1850 to at least 1920. "Modern" ironstone will be used to identify all semi-vitreous wares distinctly modern in appearance; these are tentatively

dated to post-1930. Of course, individual sherds with decoration that date them more precisely than these broad ranges are treated accordingly.

Yellow-colored earthenware is an American coarse utilitarian body type. The paste in fact consists of stoneware, not earthenware clays, but the ware is classified as an earthenware because it is not fired to vitrification. The paste ranges from soft and porous in low-fired examples to nearly vitrified pieces which have been fired at high temperatures. The paste color is buff to brownish yellow, and varies with the amounts and types of impurities in the clays and with the firing temperature. Surface treatment of the vessels varied with function. The variant known as yellowware is covered with a clear glaze. It was molded into a variety of utilitarian forms such as bowls, jelly-molds, pitchers and mugs. After 1840, it is frequently found with annular bands in white, brown, and blue, as well as mocha decoration in blue or brown (Ramsey 1947:148-150). Yellowware was produced into the twentieth century.

Yellow-colored earthenware also is found with a tortoiseshell brown glaze produced by mixing manganese and iron oxides into the glaze. Known as rockinghamware, the type was molded into a variety of decorative and utilitarian shapes. Manufactured between ca. 1830-1900, the height of rockinghamware's popularity was the mid-nineteenth century.

A final type which is not actually a yellow-colored earthenware but is discussed here for the sake of convenience is English majolica. It has a coarse, cream- to buff-colored earthenware body which is covered with bright, opaque or semi-transparent, multi-colored glazes. The glazes disguised the coarse ceramic bodies, which were molded into a variety of shapes. Introduced by Minton of Stoke-on-Trent at the 1851 Great Exhibition, it was later manufactured by Wedgwood and by George Jones and Sons in England as well as at a number of American potteries.

A number of different refined red-colored earthenware types were manufactured in England from the eighteenth into the nineteenth century. The pastes are fine-textured, thin, compact, and generally hard-fired. The pastes show rich reddish-brown through clear lead glazes. These distinctive wares are rarely found in southeastern Louisiana collections.

Stoneware pastes range in color from white-gray or buff to deep gray and brown. Stoneware clay becomes vitreous between 1200-1300 degrees, and it has a smooth and stoney appearance (Rhodes 1973:22). The most common surface treatment of stoneware is salt glazing. The raw ceramic is fired until the clay matures, at which point salt is added to the firebox. The vaporized salt is then deposited on the ware, producing a thin, bright, hard glaze with an orange-peel texture (Rhodes 1973:285).

Stoneware was first commercially produced in the United States ca. 1775, and use of these heavy, gray or brown bodied, wheel-thrown utilitarian vessels became widespread during the nineteenth century. Because the salt vapor did not adequately penetrate the interior of vessels, an Albany slip, developed ca. 1810, often coated the interior of American salt-glazed stonewares produced after this date. Salt-glazed stoneware is often undecorated, or decorated with cobalt or manganese hand-painting. The application of an engobe, or slip to change the surface color of a vessel prior to glazing was also common, as was exterior brown slip glazing. The fact that stonewares were often produced in small local potteries contributes to the large amount of variation seen in these vessels.

One distinctive stoneware type is Westerwald gray stoneware. Production of gray salt-glazed stoneware with cobalt decoration (*Blauwerk*) was established at Raeren by 1590. Master potters from this area and Siegburg soon moved south into the Westerwald. Cobalt and manganese oxide decorated gray stoneware manufacture began ca. 1614 and Grenhausen and Höhr; by mid-century, trade in this ware was established. The popularity of the ware rapidly declined in the third quarter of the eighteenth century (Noel Hume 1967; Gusset 1980:149).

"Porcelaneous stoneware" is a classificatory term suggested by Worthy (1982) to describe a type that embodies traits of both stoneware and porcelain. Although use of this term has been rejected by Majewski and O'Brien (1987:106), it seems appropriately descriptive. Also known as semi-porcelain and hotel china, it was developed in the United States after 1880 for table use. However, Majewski and O'Brien (1987:124) indicate that it may have not been used in the home until the twentieth century. It contains both kaolin and ball clay, and is fired between 1200-1400 degrees (Worthy 1982:337). It is very white, dense and completely vitrified, but unlike porcelain, is opaque.

Hard-paste porcelain is completely vitrified and translucent. It is made from kaolin and petunse (feldspar, or potassium aluminum silicate), and it approaches a glass in composition because of the high firing temperature (1300-1450° C.). The paste tends to fuse with the feldspathic glaze during firing. The ware fractures conchoidally. The surface appearance is hard and smooth, and the surface color ranges from very white to white with a gray, blue, or green cast (Miller and Stone 1970:81; Noel Hume 1970:257-263). Porcelain can receive a variety of surface treatments, although only cobalt decoration may be applied underglaze due to the heat necessary to mature the clay.

Soft-paste porcelain differs from hard-paste porcelain in the use of fluxing agents, such as ground glass frits or bone ash, to lower the firing temperature required to mature the clay. The color of soft-paste porcelain ranges from white to pale buff. While the paste is vitreous, it has a somewhat granular texture. There is a clear division between paste and glaze when viewed in cross-section, and it is somewhat less translucent than hard-paste.

Hard-paste porcelain was first manufactured by the Chinese in the eighth century (T'ang Dynasty). Chinese porcelain came into such demand that, by the eighteenth century, Oriental potters were manufacturing porcelain exclusively for export to western markets. Oriental porcelain is found in British colonial contexts as early as the first half of the seventeenth century (Noel Hume 1970:257). It is also recovered on French (Miller and Stone 1970:81) and Spanish colonial period sites (Deagan 1987).

The first European hard-paste porcelain was produced at Meissen in 1709. Soft-paste porcelain manufacture began in France in the late-seventeenth century, and in 1769 hard-paste was first produced at Sevres. Soft-paste porcelain manufacture also began early in England at Bow, Chelsea, and Derby. In addition to the use of glass frits, bone ash was utilized as a flux in England as early as 1750. Spode is usually credited with perfecting and standardizing the English "bone china" formula ca. 1790. The discovery of kaolin deposits in Cornwall led to the founding of the Plymouth factory in 1768, which produced the first English hard-paste (Wynter 1972; Cotter 1968).

By the later-nineteenth century, inexpensive porcelains were being mass produced for the American market by manufacturers such as Haviland and Company. Undecorated French porcelains provided competition for American and British ironstones during this period. Commercially successful hard-paste porcelains were not manufactured in the United States until ca. 1880.

